

THE MAGAZINE OF BETTER SCHOOL ADMINISTRATION

THE Nation's Schools

DECEMBER

Smoke Is the Killer!

Fallout Protection: A Plan for Schools

Responsibilities for the School Administrator

Highlights of Three National Conventions

The Meaning of Christmas

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Mock School Fire Teaches Evacuation in Waukesha

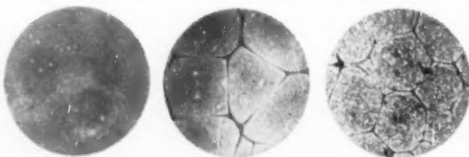
(Story on page 53)

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THE *Nation's* Schools

THE MAGAZINE OF BETTER SCHOOL ADMINISTRATION

DECEMBER 1959

Vol. 64 No. 6

Articles in this issue

'Simulated Horror' Taught Evacuation in Mock School Fire

LEO E. BUEHRING

First of its kind in school history is the fire drill in which a Wisconsin elementary school was evacuated under conditions simulating an actual school fire. This "dry run" fire precaution, advocated by a Chicago evacuation specialist, involved teamwork between the community and school, with the school furnishing "victims." .53

Smoke Is the Killer!

GEORGE REASONS

Children's lives are snuffed out by smoke, not flames, concludes the Los Angeles fire department after setting 75 fires to a condemned school building. The effectiveness of vents, curtain boards, sprinklers and other school fire safety equipment is analyzed and their established uses are questioned61

'Competent Business Management Improves Education'

LEO E. BUEHRING
JAMES J. BETCHKAL

A comprehensive report of the 1959 A.S.B.O. convention details how more than 2200 delegates, chanting "there's no business like school business," met in Miami Beach to try to solve problems in such subjects as finance, purchasing, personnel, maintenance, schoolhouse planning, food service, and pupil transportation74

Responsibilities for the School Administrator

RUSSELL T. SANFORD

Preparing the budget, originating purchases, and comparing, appraising and testing the makes of products are the responsibilities delegated almost exclusively to the administrator and his staff, according to the findings of two TNS studies conducted separately among administrators and board members76

Quality for Rural Schools

MILDRED WHITCOMB

How rural and "rurban" schools can give "excellent" schooling took the attention of 400 superintendents as the N.E.A. Department of Rural Education and the Division of County and Rural Area Superintendents enjoyed Western hospitality in Seattle80

Christmas Creche May Be Placed on School Grounds

LEE O. GARDER

School boards do have authority to permit the use of school property by religious groups provided schools make no contribution through employee donations of time or money, rules a New York court in a dispute involving the placing of a nativity scene on school premises during a Christmas recess82

Continued on next page ►

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THE *Nation's Schools*

OPINION POLL

Too Much Emphasis on High School Varsity Athletics?

Nearly half of the administrators answering this month's Poll believe that high school varsity athletics, especially football and basketball, are overemphasized. They also oppose organized athletic competition for elementary school children.

SUPERINTENDENTS' RESPONSES79

SCHOOLHOUSE PLANNING

Fallout Protection: A Plan for Schools

New research shows how schools can be constructed to minimize dangers in atomic attack. Our report summarizes a study sponsored by the Office of Civil and Defense Mobilization. Four case studies are presented with models and floor plans.

WALLACE B. CLELAND63

SCHOOL LUNCH

Schools Can Teach Teens To Eat Right

Since teen-agers are usually the most poorly nourished group in the population, the author lists ways that the home and school can improve the health habits of this group. She also outlines teen-age activities designed to encourage proper eating.

ANNA DE PLANTER BOWES86

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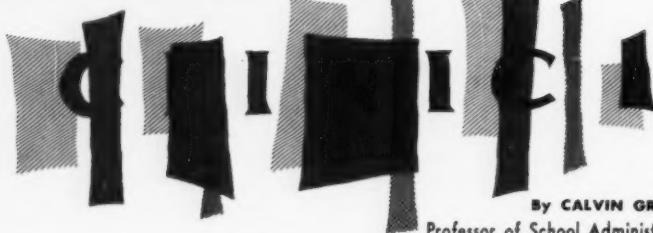
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ADMINISTRATOR'S



By CALVIN GRIEDER
Professor of School Administration
University of Colorado

Why Base an Administrator's Pay on That of a Teacher?

IS A beginning elementary school principal worth 1.2 times a teacher, or 1.4, or 1.31, or what? Likewise, is a high school principal worth 1.4 times a teacher, or 1.65, or what? How about the superintendent? Is he worth 2.5 times a teacher, or 3.2, or just how much?

In the last couple of years a veritable rash of "ratio salary schedules" or "index salary schedules" has appeared. They attempt to establish salary levels for various positions in relation to some basal position, such as that of a beginning teacher. For each year of service in each category of personnel a figure is given setting the ratio of salary to the designated base. Provisions are usually made also for prior service and for several levels of graduate study.

Once the various series of ratios or indices are determined, the plan is sort of self-operating. (Of course the dollar figures must be calculated for budgeting and accounting.) Any change in the base salary, such as that of a beginning teacher with a bachelor's degree and no prior service, automatically changes all the other salaries.

The ratio or index scheme does away with flat increments, such as \$200 a year, and tends to result in progressively larger dollar increases for persons at successively higher position levels.

Over against these advantages, or what are commonly regarded as such, is the difficulty of selecting "correct" ratios or indices for all levels of positions for each category of personnel. This difficulty is also confronted in formulating schedules employing actual dollar figures, but the latter are in somewhat grosser dimensions, often in \$100 units.

But why try to estimate the value of services, especially those of administrators and other nonteaching personnel, in terms of the value ascribed to the services of a beginning teacher? Those who subscribe to ratio or index systems seem to be the people Jacques Barzun was thinking of in a lecture last summer on the tyranny of numbers, when he said: "... they are governed and overawed by the numbers so produced ... the figures taken as solid evidence of merit." The more complicated the scheme, the more reverence it seems to command.

For the teacher category a system of ratios or indices is fairly acceptable, I suppose, but I would limit its use to this group if I used it at all. Rather than rely on such a system of numerology for other groups, I would prefer to follow the recommendation made by Herold C. Hunt and myself to the Los Angeles city school system for personnel other than teachers:

"It is suggested that these salary schedules be considered independently of the teachers' salary schedule and that no attempt be made to establish ratios between these classes of personnel and teachers.

"In support of the foregoing position the consultants hold that the nature of teaching and administrative service is fundamentally different, requiring different skills and competencies. An important consideration is the element of responsibility inherent within administration and supervision involving policy formulation, decision making, planning, coordination, organization, execution, evaluation. . . .

"It is assumed . . . that initial assignment to these positions is made on the basis of relevant requirements relating to preparation, experience and personal qualification."

► **What superintendents want to discuss.** Each summer since 1948 (except 1955) I have directed a small conference of superintendents who mostly represent communities of from 10,000 to 40,000 in population. Approximately 25 men attend on the average, coming from eight or 10 states, chiefly in the Middle West and Mountain areas.

Several weeks ahead of time the participants are asked to send in three or four topics for discussion. These are organized under appropriate heads and submitted at the first session as tentative agenda.

It is interesting to see the relative emphasis given to the eight subject areas usually employed. Leaving out 1948, I give below the number of questions for each subject for the five conferences of 1949-53 and the five held during the period 1954-59. These figures are not a perfectly true reflection of relative interest because duplication of questions is avoided in compiling the final list. But the figures are probably a pretty fair indication of what superintendents in middle-size districts think about in these parts.

Category	Number of Topics	
	1949-53	1954-59
1. School finance	20	21
2. Personnel		
administration	61	53
3. Organization and		
administration	49	71
4. School plant	41	6
5. Curriculum,		
instruction, guidance	75	112
6. School-community		
relations	30	25
7. State and federal		
relations	6	16
8. Pupil personnel	17	3
	299	307

► **Ways to improve the next school year.** Last July at the latest of the conferences just mentioned, Supt. Wendell Godwin of Topeka, Kan., served as consultant. One day he suggested that we school administrators might well ask ourselves: "How are we going to make next year better than last year?"

With the time for making New Year's resolutions close at hand, I paraphrase here 10 of Supt. Godwin's suggestions. *Let us:*

1. Look upon our schools not as a place where children "get educated" but as a place where they gradually become self-sufficient and ready to learn all their lives.
2. Look upon our schools as a place

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where boys and girls learn how to do some critical thinking.

3. Help pupils become concerned most of all with learning something important and not be concerned so much with marks and honor rolls. Let teachers ask: "Are these pupils substantially different from what they were when I started with them?"

4. Recognize that vocational education is changing to technical instruction at the subcollegiate level.

5. Not set pupils up against impossible standards.

6. Emphasize reading in the high school, especially *pondering* what is read, not merely the act of reading.

7. Seek the establishment of educational clinics.

8. Do a better job of identifying the able and ambitious pupils, and then treat them as well as we treat the retarded: specially qualified teachers, special equipment, favorable class size.

9. Work for a five-year program of teacher preparation, embracing four years of the liberal arts and one year of professional study.

10. Do a better job of getting appropriate salaries and appropriate assignments for expert teachers to do expert work.

► **My Apologies.** My October comment on the Gary, Ind., school system is in error. The survey report of the Public Administration Service recommended that the superintendent be the chief officer of Gary schools and that other officials, such as the director of finance and assistant superintendent, be responsible to him.

► **Handbook on healthful school living conditions.** The Kansas State Board of Health has published a 52 page pocket size booklet, "The School Inspector's Vade Mecum."

Intended as a guide for county health officers (who are physicians), the Vade Mecum sets forth, in not too specific fashion, standards on 12 major environmental conditions and calls for grading a school on each one as excellent, satisfactory, substandard but acceptable for temporary use, or substandard and not acceptable.

The 12 items covered are: (1) site, (2) building, (3) water, (4) waste disposal, (5) heating and ventilation, (6) lighting, (7) classrooms, (8) washrooms and sanitary facilities, (9) playgrounds, (10) food handling and sanitation, (11) safety, and (12) health of school personnel. ■

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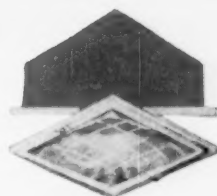
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THE NATIONAL DEFENSE EDUCATION ACT

THE FIRST 10 MONTHS OF PROGRESS: SEPTEMBER 2, 1958 TO JULY 1, 1959

THIRD MILESTONE... When, in 1787, the Northwest Ordinance set aside public lands for elementary and secondary schools, the first great milestone in Federal aid to education was reached. The second was passed in 1862 when President Abraham Lincoln signed the Morrill Act providing land grants for state universities. The third milestone came into view last year shortly after the first Sputnik whirled into orbit and it became instantly and dramatically clear that a challenge had been issued to American education. The Congress answered that challenge with the National Defense Education Act whereby the Federal government made available to the states monies for educational materials and equipment, student loans, fellowships, science and language programs, guidance, counseling, and research. In many cases, these monies were an outright grant. In all cases, although the money came from the Federal government, the educational programs were to be wholly controlled by the states, the communities and institutions within them, thus carrying out and strengthening the traditional American concept of state and local control of education.



ARTHUR S. FLEMMING, Secretary of Health, Education, and Welfare

"THE NATIONAL DEFENSE EDUCATION ACT... continues a historic partnership which has demonstrated its value to the American people over many years in the past—a partnership in which the Federal Government assists States, communities, and private institutions to pioneer in new educational programs and to strengthen others that have proved their worth.

"This legislation will, I believe, help to bring about a significant increase in State, local, and private support for the education of our young people. It offers a splendid opportunity for teachers, school administrators, and public officials to enlarge their services to our free society."

REPORT ON A PARTNERSHIP...

On this map, each state and territory bears a figure representing the total sum of NDEA aid received by each state or territory during the first fiscal year of the Act's existence. The grand total of more than \$91,000,000 represents merely the first stage in a four-year program under which more than one billion dollars are authorized for schooling from kindergarten to graduate school.

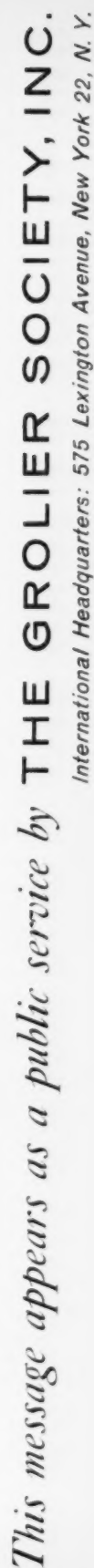


LAWRENCE G. DERTHICK, United States Commissioner of Education

"We will do the Act justice only if we see it as a mighty complex, in which each part reinforces the other, and all parts join to strengthen education.

"We can see the Act as a juncture of forces bearing down on such problems as the losses in talented students and the shortage of teachers. We can see it as a reaffirmation of our traditional faith that hard work and ability will have their reward.

"We can see it as a source of technicians in an age of automation; as a source of ambassadors in an age of world responsibility; as a way of making the average citizen at home in an age of science. We can see it as a boon to our colleges a decade hence. If we see it thus, each step we take will move us surely onward toward our goal: Defense of our Nation against every enemy of body, mind, or spirit that time may bring."



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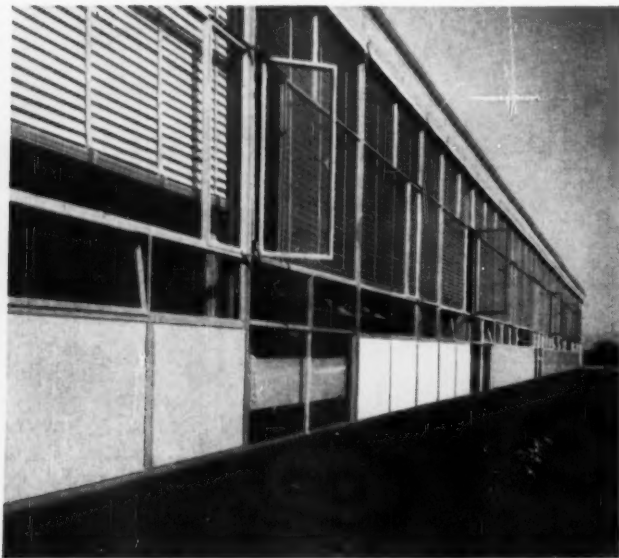
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IMMEDIATE AND LONG-TERM ECONOMY—Applied-skin type construction gives up to 5% more usable floor space, reduces weight on frame and foundation, permits fast erection even in foul weather.

For *all* the advantages of modern curtain wall construction—combined with the *exclusive* feature of ventilated, insulated panels integrated with heavy-intermediate steel windows—investigate VISION-VENT. Send coupon for full information without obligation.



Cost of VISION-VENT Window Wall construction utilized by McLeod & Ferrara, Architects, compared favorably with any other type of construction considered. No other type, however, offered the combination of added light, beauty, durability, and complete flexibility of design.



Truscon "O-T" Open Truss Steel Joists® are employed exclusively in North Hagerstown's new high school. Joists are covered by acoustical ceilings in all but a few laboratories—such as the electronics lab seen above—where possible increases or changes in electrical systems will require complete accessibility. Send coupon for "O-T" Steel Joist details.

went VISION-VENT



Architects: McLeod & Ferrara, Washington, D.C.



These high-quality Republic Steel Lockers will be enjoyed by generations of North Hagerstown high school students. Designed and built by Republic's Berger Division to weather youthful exuberance. Bonderized to take and keep a finer enameled finish. New, improved handle. All locker sizes and styles. Complete planning, engineering, and installation service. Send coupon for complete information.

REPUBLIC STEEL



*World's Widest Range
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Vol. 64, No. 6, December 1959

REPUBLIC STEEL CORPORATION
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1441 REPUBLIC BUILDING • CLEVELAND 1, OHIO

Please send full information on:

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☐ Republic Steel Lockers

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For additional information, use postcard facing Cover 3.



S. AUERBACH A.I.A.

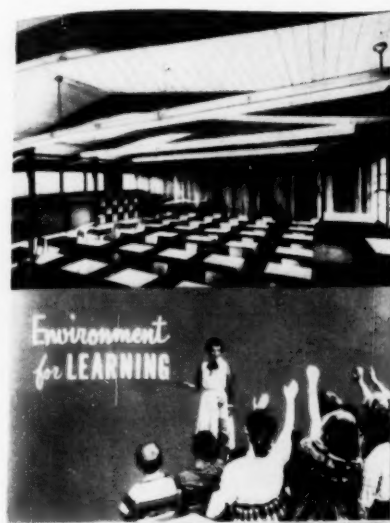
Bring out the best in the school...

the best in the scholar... with **WOOD**

Young people spend the most impressionable hours of every day at school. Here they absorb much of their respect for beauty, good taste and fair play—along with a healthy diet of human knowledge. Certainly no other surroundings are more naturally beautiful than *wood*, more naturally conducive to unhampered learning and effective teaching.

Used liberally in paneling, cabinetwork, flooring—or more fundamentally in structural beams, posts and exterior siding—wood construction assures a community that its tax dollars will deliver more school for every dollar invested... more schooling for every student.

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Wood Information Center, 1319 18th St., N.W., Washington 6, D.C.



This informative new booklet, "Environment for Learning," contains comprehensive data on the use of wood in schools. For your free copy (or copies) write to NLMA at the address shown.



From his desk, Dr. J. C. Witter, Superintendent of Schools, Caney, Kansas, is in instant two-way conversation with teachers.



Teacher saves steps; she answers calls from any point in room. Call from principal is announced by bright red privacy light. Teacher can also call principal.



Portable amplifier and loudspeakers provide P.A. facilities for the auditorium, gym and athletic field . . . including announcements to spectators.

For schools with low-budget problems

Executone provides complete communications, classroom privacy

Caney, Kansas, schools get all the many features of expensive console sound systems with simplified, low-cost Executone intercom. This inexpensive, all-purpose system saves time and energy for teachers and principal, increases administrative efficiency. Schoolwide announcements can be made from the principal's desk. School programs, recorded music, speeches, special events, emergency dismissals, every form of sound system transmission can reach all school areas, as well as individual classrooms.

You get these plus advantages with Executone:

- **Lower Cost**—Expensive console features now possible with new simplified wiring circuit.
- **Easy to Operate**—No complicated, confusing control panels.
- **Easily Installed** in existing schools. In new construction, additional savings possible on wiring.
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- **Space Saving**—Principal's compact control station needs only small fraction of space required by console.

More time for teaching! Teachers like the system. It saves them steps, time and energy . . . so students benefit, too! Find out what Caney schools have learned . . . how Executone School Intercom can improve *your* school administration. Just send coupon for more information.

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Manufacturers of School-to-Home telephone equipment for shut-ins

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Without obligation please send:
☐ Complete details on Caney Schools' communication set-up
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They don't build schools



Dracut High School, Dracut, Mass. Architect: Hugh Stubbins & Associates, Cambridge, Mass. General Contractor: Vara Construction Inc., Boston, Mass.
Panel Fabricator: Seaporcel Metals, Inc., Boston, Mass. Window Wall Contractor: Quincy Ornamental Iron Works, Boston, Mass.



like they used to!



In Dracut, Massachusetts, you'll see this striking example of modern school construction. This beautiful, low-cost high school is a steel window-wall building.

This is economical construction. The wall panels and windows are framed in steel mullions that form complete floor-to-ceiling units. These units are *factory assembled* and delivered ready to be set in place. Labor costs and construction time are cut to a minimum.

The panels consist of a porcelain-enameled steel sheet exterior, insulation, and zinc coated galvanized steel sheet backing. The panels are only one inch thick so there is more floor space inside the building. And because they are exceptionally strong and light, the builder was able to use a lighter, less expensive foundation.

This type of construction practically eliminates exterior maintenance. These walls will never have to be painted or refinished. The porcelain-enameled steel has a hard, glass-like surface that will always look bright and new with just an occasional wash.

This modern, low-cost way to build deserves your special attention. For more information about steel window walls, write to United States Steel, 525 William Penn Place, Pittsburgh 30, Penna.

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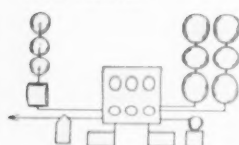




...has the Right Fire Alarm System for your School



TYPE AMVAD

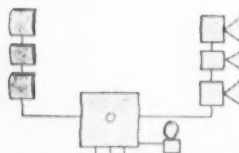


Completely automatic system combined with manual stations, gives 24-hour protection. Operates regardless of power failures. Sounds evacuation signal, indicates location of fire at a central point, may be used to signal municipal fire headquarters automatically. Fully supervised for complete safety.

Not just one, but an entire range of fire alarm systems to meet the requirements of every school building. Each system is made entirely of "matched design" components produced exclusively by Edwards. This is your assurance that every part of the system is specifically designed to perform a certain function... designed so that it will give years of dependable, maintenance-free service. And you'll like the appearance of Edwards Fire Alarm stations too. They are designed to blend into the decor of modern schools.

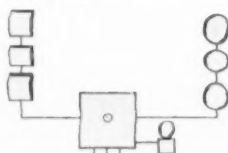
For more than 80 years Edwards has been the leader in the design and manufacture of signaling equipment. This long experience guarantees simplicity and reliability in every product. To aid you in selecting the correct system for every school building, Edwards Technical Representatives in 53 key cities in the U. S. and Canada are ready to help you get the proper fire alarm system.

TYPE CCVA



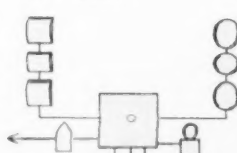
Simplest supervised system sounds an evacuation alarm without indicating location. Closed circuit, full supervision assures instant warning whenever system becomes inoperative due to open circuits, grounds or other defects. Ideal for the smaller one story school.

TYPE SSAMR



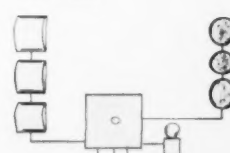
Common Coded: sounds 4 or 6 rounds of common code such as 4-4, a distinctive alarm signal. For buildings where automatic location is unnecessary but a distinctive common code signal is desired. Full supervision with trouble bell guarantees continuous protection.

TYPE SSAM



City-connected system sounds a coded signal within the building and also at the municipal fire headquarters, entirely automatically. Recommended particularly for large schools and institutions.

TYPE SSA



For large buildings: coded signal throughout the premises tells where alarm was sounded, locating the fire while it gives the evacuation signal. Fully-supervised system sounds a special trouble bell if there is any fault in the system.

To find out how Edwards fire alarm systems are tailored to your requirements, see your local Edwards Technical Representative or write
Dept. NS12, Edwards Company, Inc.,
Norwalk, Connecticut. (In Canada: Edwards
of Canada, Ltd., Owen Sound, Ontario.)

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new JANITROL

**school heating - ventilating - cooling system
with draft-free perimeter distribution**



- new schools
- for*
- add-on school rooms
 - modernization

JANITROL HEATING AND AIR CONDITIONING DIVISION
SURFACE COMBUSTION CORP., COLUMBUS 16, OHIO

NOW... any schoolroom can have modern comfort at modest cost!

The new Janitrol school comfort system is a self-contained, individual-room heating and ventilating system (with optional summer cooling) that features perimeter-type, draft-free air distribution, recognized as the best way to comfort condition a schoolroom. The system may be installed very economically (saving as much as 60% over large central systems), and extra savings will continue, due to the low operating and maintenance costs.

The standard system consists of (1) a floor-to-ceiling metal cabinet which encloses the gas-fired heating and

ventilating unit and (2) wall duct sections that occupy unused space and provide efficient, perimeter distribution of the conditioned air. If extra space-saving storage is desired, matching shelves may be included with the wall ducts initially, or added at any future time.

The modular sections of the system permit unusual flexibility in installation for new schools, additions to existing structures or for modernization of older schoolrooms. Installation may be made after all construction work is completed, if necessary.

dimensions - capacities

The few modular components shown below will combine to provide a custom-sized installation for any conventional schoolroom. Ducts can run to right or left; 90° corner duct sections are available as standard items.

PERFORMANCE DATA

MODEL	FDSC-80	FDSC-100	FDSC-120
Input, Btu/hr	80,000	100,000	120,000
Output, Bonnet	64,000	80,000	96,000
Motor H.P.	1/4	1/2	3/4
Heating, CFM at 85° Rise	654	815	980
Ventilating-Cooling, CFM	880	1100	1300

OPERATING FEATURES

HEATING. The gas-fired heating unit is A.G.A. approved as a forced-air furnace for closet installation and as a unit heater for all types of gasses, including LP, so even schools off the gas lines can use this system. For maximum fuel economy during non-school hours, heating may be automatically, or manually cut back, and outside ventilating air intake closed. All combustion air is supplied from a separate outside air inlet—no combustion air is drawn from the classroom.

VENTILATING. An unusually quiet-operating centrifugal blower, rubber cushioned in an acoustically-insulated compartment, circulates the conditioned and filtered air. There is no mixing of air between rooms. Outside fresh air, in quantities adjustable to meet local codes, is automatically brought into the classroom during school hours and blended to insure draft-free comfort. The system is thermostatically controlled to provide uniform room temperature at all times. Many classrooms need cooling, even in winter, due to unusual heat gain from the sun, lights and students. On these occasions, the system will automatically bring in 100% unheated outdoor air, in increased volume, until room temperature moderates.


PERIMETER DISTRIBUTION. In the perimeter-type air distribution system, the wall ducts are placed along the walls below the windows, and distribute the conditioned air upward across the exposed wall, and window surfaces and throughout the room. Each wall section has adjustable diffusing outlet with locking damper control to accurately balance the air flow. To avoid floor drafts, all circulated air is returned to the unit at ceiling level.

SUMMER AIR CONDITIONING. An inherent feature of the Janitrol system is the economical method of providing summer air conditioning for individual rooms that are used frequently during the warm season. The insulated unit base compartment is designed to receive the summer air conditioning coil without major system alterations. Standard Janitrol summer air conditioning equipment may be included as a part of the original installation, or may be added later at reasonable cost by a competent air conditioning contractor.

**FREE-NEW
DESIGN FILE**

Write for your file of complete technical and specification data on school heating and air conditioning.

JANITROL HEATING AND AIR CONDITIONING DIVISION
SURFACE COMBUSTION CORPORATION
DEPT. S-95 COLUMBUS 16, OHIO



YOUR local metal fabricators build these aluminum railings from Blumcraft materials. Competitive bidding is thus provided for public and private work. Blumcraft general catalogue M-60, containing the Deluxe line and also low-cost Tube-Line, is available to Architects; or consult Sweets file 6e/Blu.

TUBE-LINE®...LOW COST RAILINGS



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THE **ABC** OF **BENTSON** QUALITY

Built to outlast teen-age energy and to pass school board examinations! Bentson quality steel furniture for schools meets tomorrow's education needs at today's tight budgets.



Advanced Design! Wide variations in desk pedestals, top edges and back panels — plus interchangeable drawers. Bentson products are styled for progressive schools!

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Colorful! Twelve beautiful pastel enamels in solid or two-tone effects, and two handsome grained finishes suit Bentson steel desks, files, tables, and companion units to any over-all decorative plan.

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Go To School!

Califone's complete line of Language Laboratory components has been developed after extensive research into the requirements of Schools and Universities at all grade levels.

Recorders, playbacks, phonographs, consoles, booths, etc. — all manufactured by Califone — offer to the field of language education integrated equipment that is the most reliable, easiest to service and simplest to operate.

Contact your Califone Language Laboratory Dealer. He will help you determine your exact requirements.

Write today for complete descriptive literature.



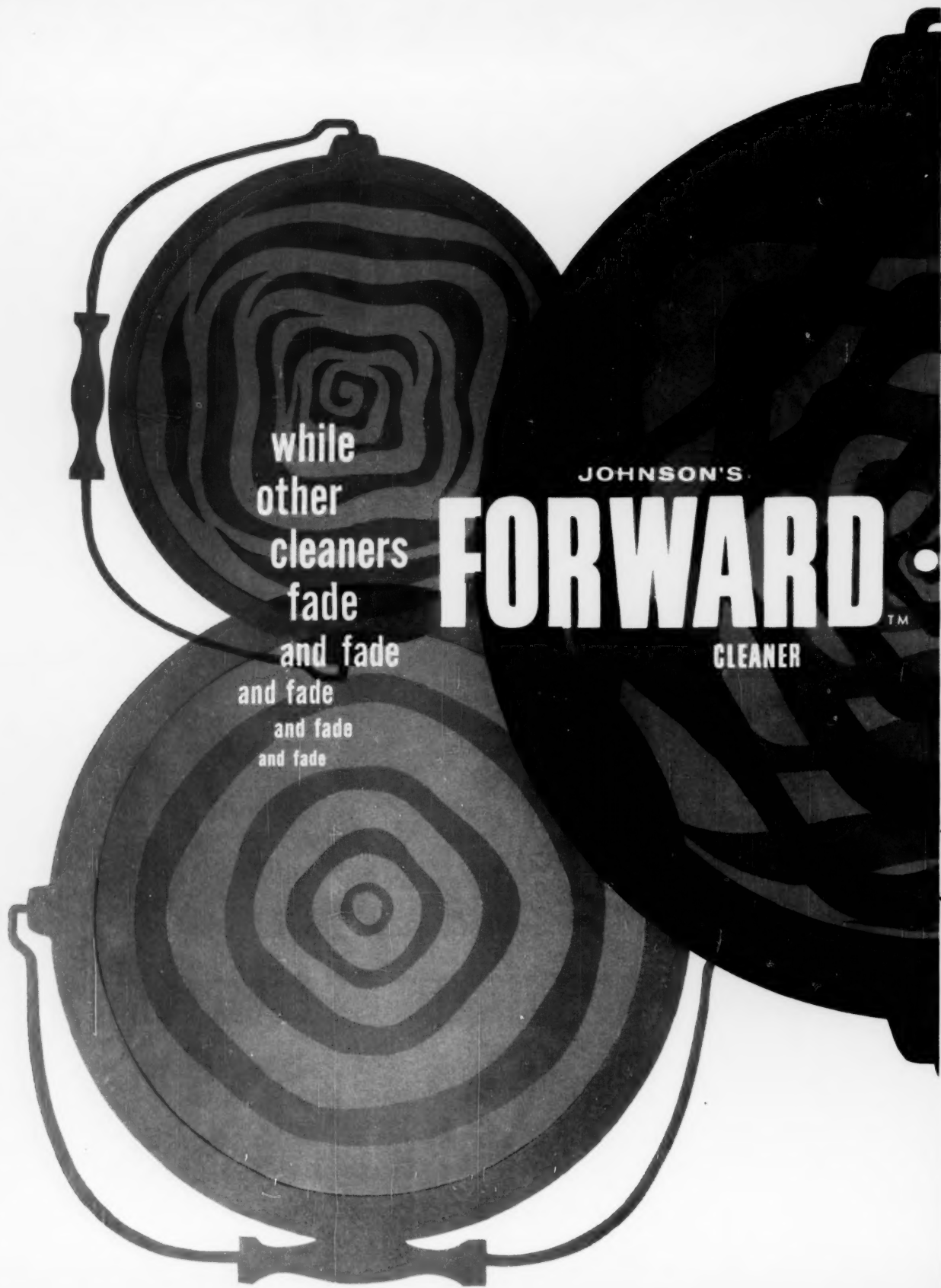
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fact: any bucket of cleaner starts losing its power as soon as you put a dirty mop or sponge in it! but now...

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cleaners
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FORWARD™

CLEANER



**STOPS
POWER
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Announcing! the cleaner that gives you a full bucket's worth of cleaning power every time!

Johnson's FORWARD...never suffers power fade-out. Even when it's loaded with dirt you know its cleaning action isn't giving out!

Now, try FORWARD and see what it means to get all the cleaning power you pay for! Call your local Johnson's Wax Distributor... or write S. C. Johnson & Son, Inc., Service Products Division NS12, Racine, Wisconsin.

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See the major part PC Glass Block sash replacement played in the remodeling of St. John's School. In addition, all ceilings were lowered and acoustical ceilings were installed. All rooms were painted. All floors were sanded and refinished and locker rooms were completely renovated. The result: truly a new school—on an old school budget.

PC GLASS BLOCKS for remodeling

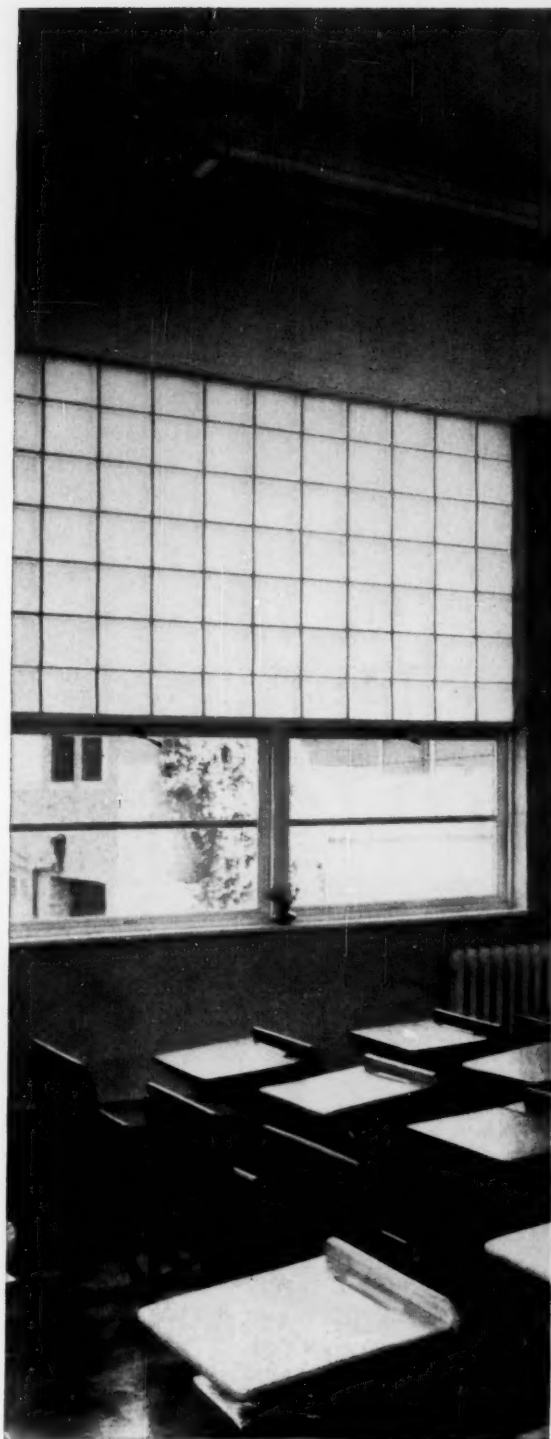
**A new school on an old
school budget for St. John's
parish, Defiance, Ohio**

Build a new school or remodel the old? PC Glass Blocks helped make remodeling the practical solution for St. John's parish, Defiance, Ohio. According to the Rt. Reverend Msgr. John J. Vogel, remodeling saved the parish over \$250,000 in construction costs, cut future fuel bills by over 20% . . . and allowed all work to be finished during summer vacation.

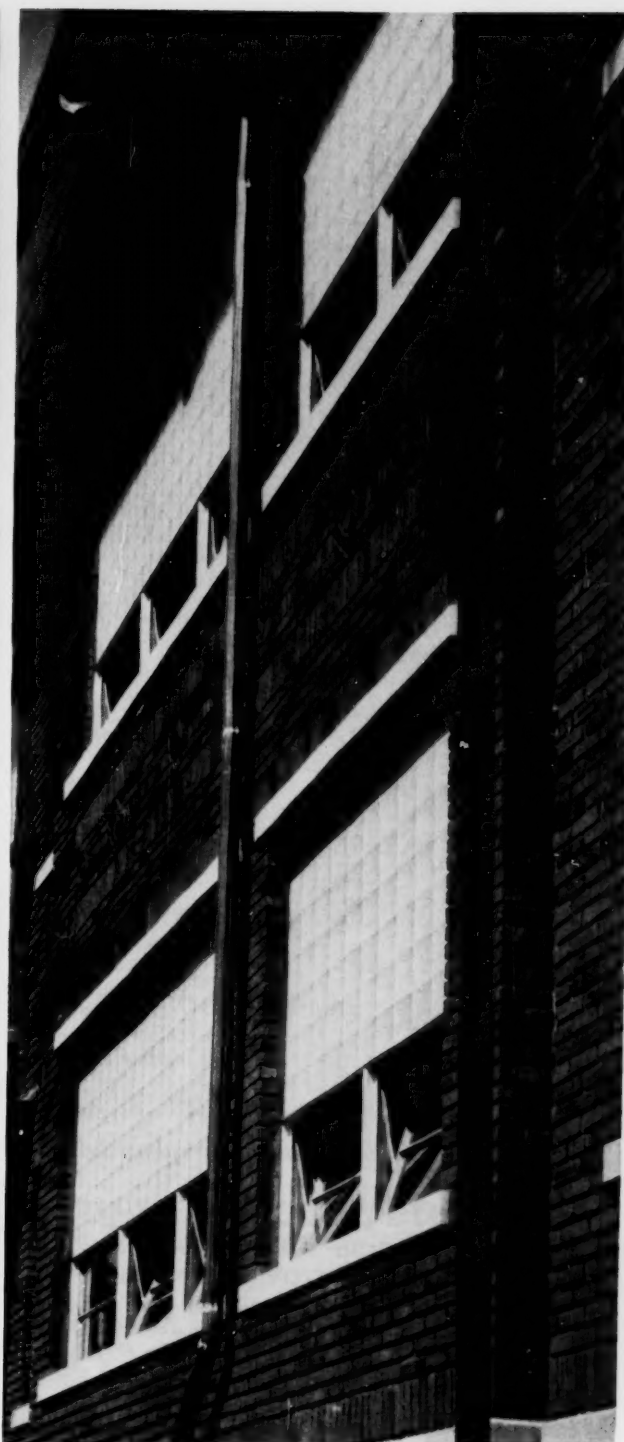
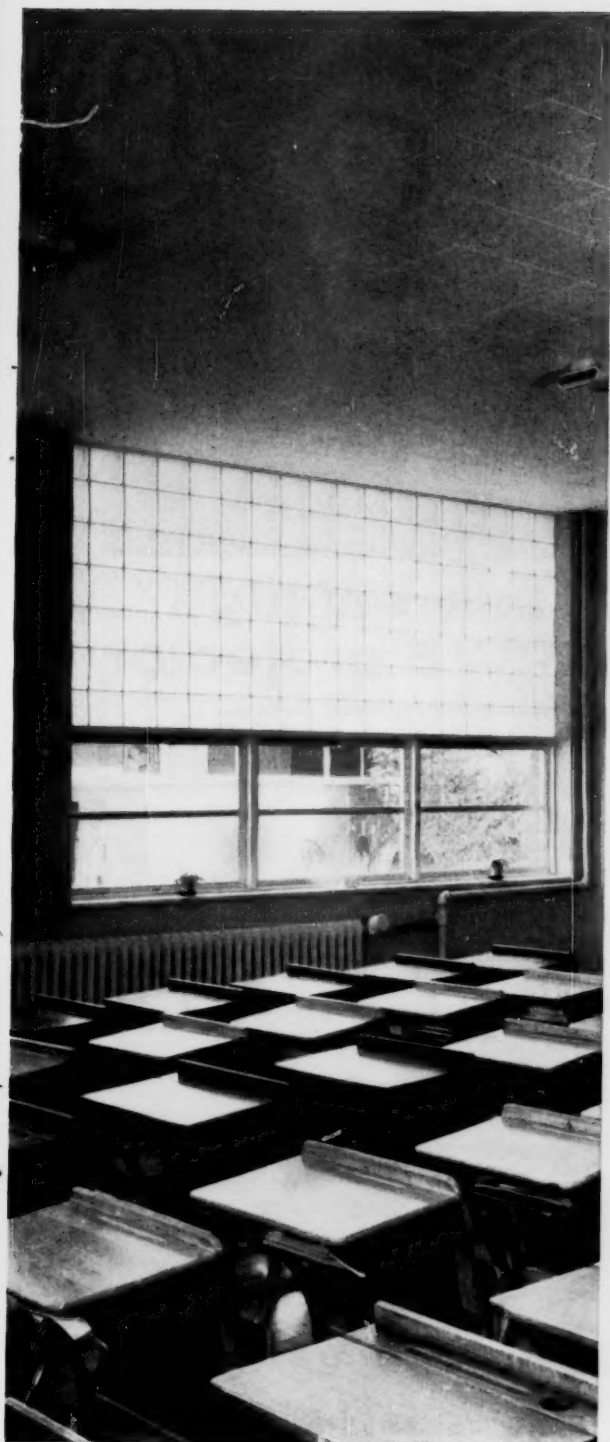
115 battered double-hung windows were replaced with bright sparkling panels of light-directing PC Glass Blocks. Maintenance engineer Wayne Vogel song considers this the most important change made. He says the old rotting sash was costly to maintain and allowed cold winds, dust and noise to infiltrate the classrooms. In winter, though the building's furnace was fired up to capacity, the children frequently had to wear jackets and galoshes in the classrooms. And poor daylighting kept back corners of many rooms in deep shadow.

These problems have disappeared thanks to the PC Glass Block panels. There's nothing to rust or rot, nothing to paint. Their insulation value (equal to 12" masonry) drastically reduces summer heat gain and winter heat loss. In fact, fuel bills dropped over 20% in the first year the new sash was in place. And now every corner of every classroom is bathed in soft, glare-free daylight thanks to the light directing action of the blocks.

When you're faced with the problem of remodeling an old school—or building a new one—consider the many valuable benefits of PC Glass Blocks . . . functional blocks, the new 4 x 12 blocks and Color Glass Blocks with 12 brilliant ceramic face hues now available on architect's specification. Get our latest catalog for complete product details. Write Pittsburgh Corning Corporation, Dept. AK-129, One Gateway Center, Pittsburgh 22, Pa. In Canada: 3333 Cavendish Blvd., Montreal, Que.



P I T T S B U R G H



pc

C O R N I N G

Vol. 64, No. 6, December 1959

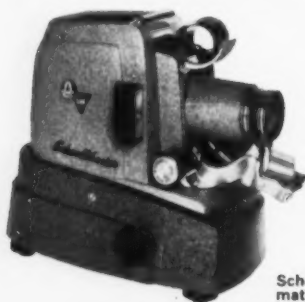
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29



***Brilliant idea!* To keep interest high teach with a **GRAFLEX-SVE** projector**

In the midst of the most effective AV programs you'll find Graflex-SVE Equipment. Brilliant projection of your teaching materials, even in semi-daylight, makes teaching easier and speeds the learning process.



SCHOOL MASTER® FILMSTRIP AND SLIDE PROJECTOR

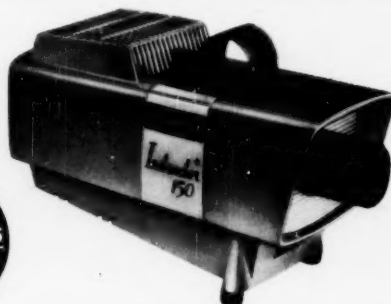
Brilliant projected screen images make the School Master the perfect projector for today's brighter classrooms. Simple to operate—any pupil can project either filmstrips or 2" x 2" slides. Easy to clean. Exclusive built-in carrying handle—easy to carry. 500 watt and 750 watt manual or remote control models. Exclusive accessory rewind take-up allows filmstrips to be rewound into storage container automatically.

School Masters (Model 750RC shown with accessory semi-automatic slide changer and rewind take-up) are priced from \$84.50.

NEW! INSTRUCTOR® 150 COMPACT FILMSTRIP PROJECTOR WITH EXCLUSIVE PUSH-BUTTON FILM ADVANCE

For smaller audiences. Most economical filmstrip projector on the market. Exclusive push-button film advance mechanism is the easiest ever devised—any pupil can operate it. Latest design 150-watt lamp has built-in reflector that assures a clear, detailed screen image. Lamp replacement is quick and easy. Three inch f/3.5 lens focuses from 19 inches. Lightweight, easy to carry.

\$39⁹⁵



Prices are subject to change without notice.

For additional information on the projectors shown, see your Graflex AV dealer. Or, write Dept. NS729, Graflex, Inc., Rochester 3, N. Y. A subsidiary of General Precision Equipment Corporation.

GRAFLEX®

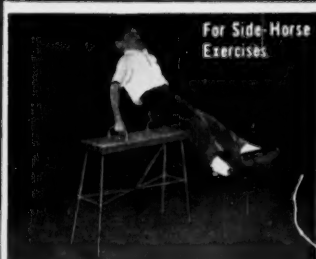
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**GENERAL
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MEDART'S Phys-Educator

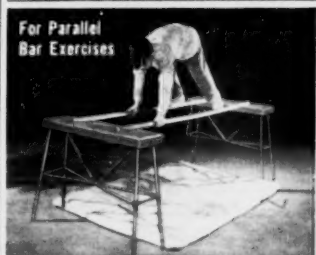
Phys-Exerciser

PORTABLE • VERSATILE
ECONOMICAL

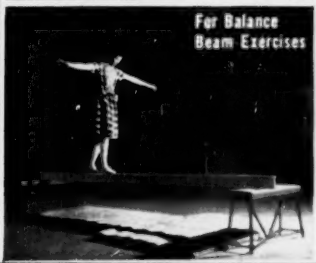
Four-In-One Apparatus costs less than any single-purpose item. Converts in seconds to side horses, parallel bars or balance beam. Adjustable instantly without tools, 18" to 30" high. Tubular steel construction. Stores compactly. Stand tops padded, green vinyl covered; metal parts, coral color.



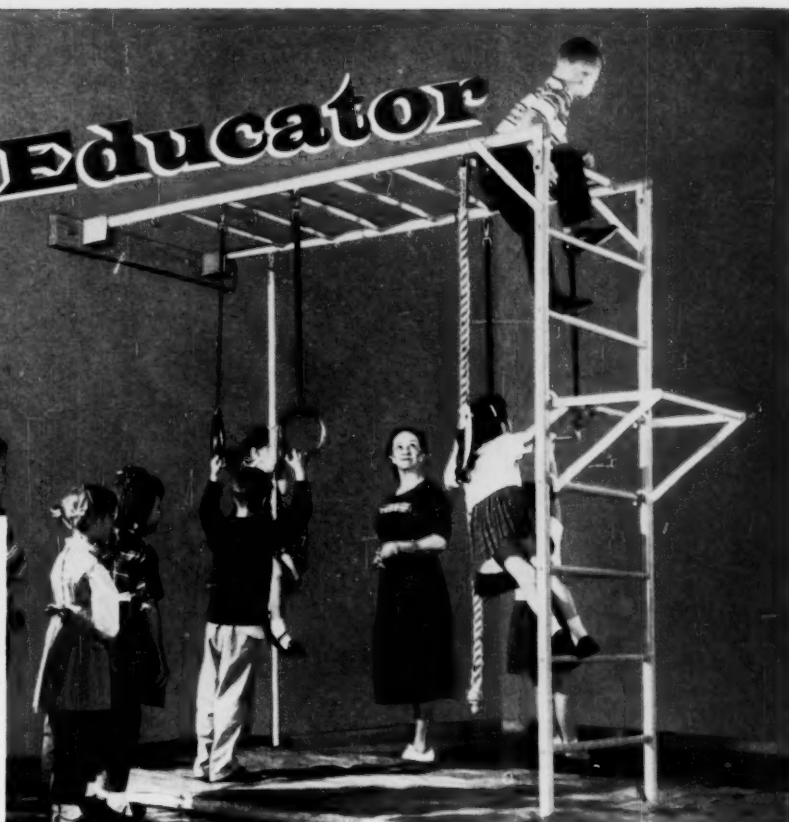
For Side-Horse Exercises



For Parallel Bar Exercises



For Balance Beam Exercises



NEW physical education equipment designed especially for elementary schools

MEDART'S PHYS-EDUCATOR provides virtually all popular exercise equipment in one compact, economical unit—trapeze, rings, climbing rope and pole, and chinning bar *plus* vertical and horizontal ladders.

Folds instantly, compactly, against wall to form stall bars. Open, unit is 7'9" high, 8'0" long, 34" wide. Closed, unit extends 8" from wall.

Rugged steel tube construction, rigidly reinforced. Durable finished in combination of bright, beautiful colors.

Installs easily in gyms, playrooms, corridors—wherever space is available.

Exercise Book included. Suggests a hundred practical exercises for elementary age children.

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Send information on: ☐ Phys-Educator ☐ Phys-Exerciser

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School

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City Zone State

☐ Have Representative call.

How air conditioning can pay for itself in a new school building

1. *An air conditioned building can cost less to build*
2. *Maintenance costs are reduced*
3. *Teaching efficiency increases*

RECENT STUDIES concerning new school buildings bring significant facts to light.

You can build a modern, fully air conditioned school building *for less money* than it costs to build a conventional building, because it can be more compact. If the building is designed for air conditioning, the savings can more than *pay the cost* of the air conditioning equipment.

Moreover, the *operation* of the air conditioning *pays for itself*—due to greatly reduced cleaning, painting and decorating bills.

Most important, there is an increase in faculty and student efficiency. This means better teaching, better learning. Studies show that because of body heat and the sun's rays it takes outside air below 60 degrees to cool a school building without air conditioning.

When outside air is above 60 degrees, classrooms are sure to be uncomfortable. Above are some U.S. Government figures, showing

CITY	% classroom time, during the regular school year, that outdoor temperature is above 60 degrees
LOS ANGELES.....	86%
DALLAS.....	62%
WASHINGTON, D. C.....	44%
ST. LOUIS.....	43%
CLEVELAND.....	34%
CHICAGO.....	32%
MINNEAPOLIS.....	25%

the percentage of school-year classroom hours, in various cities, when the temperature is above sixty degrees.

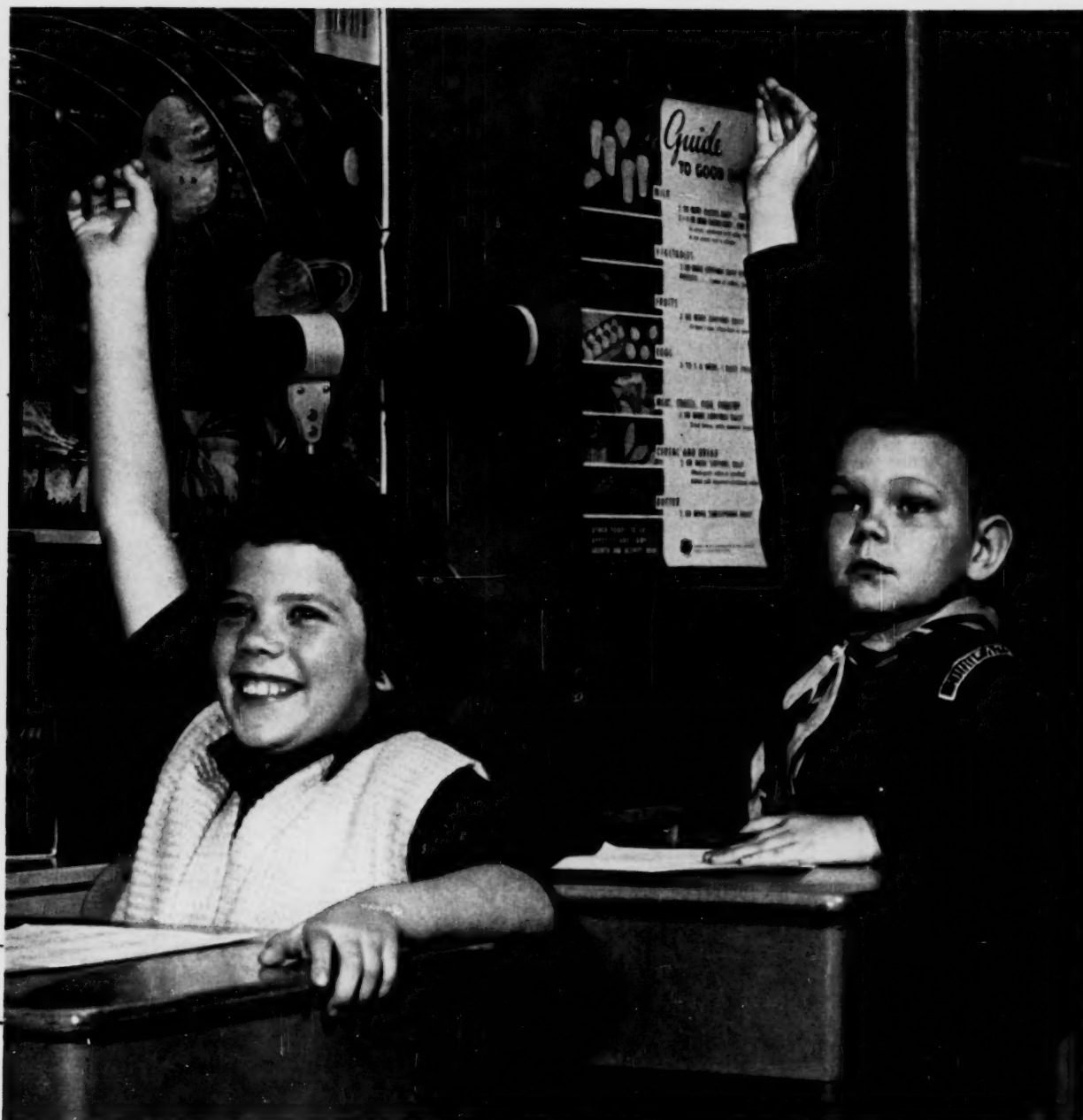
These are the times when air conditioning is *vital*, if adequate efficiency in teaching and learning is to be maintained. Of course, these figures do *not* include the important summer-time. With an air conditioned school, summer study is more popular. The school can be used in the hottest weather, day and night. It can also be utilized for recreational activities that would be impossible without air conditioning.

The other benefits of air conditioning—in terms of increased comfort and cleanliness—are immeasurable. Today, more than ever before, it is important to examine the economies of air conditioning *before* you build. See your architect or consulting engineer. Or write: Minneapolis-Honeywell, Department NS-12-106, Minneapolis 8, Minnesota.

Honeywell



First in Control



Classroom comfort means better learning, better teaching. This is the attractive Honeywell Pneumatic Round Thermostat. It is used for both heating and air conditioning, and is the most accurate pneumatic thermostat available. With one in every classroom or recreation area, the teacher can adjust the temperature to fit the specific activity. Remember, only a thermostat on the wall can sense the temperature the way an occupant does.

Radiant Ceiling News

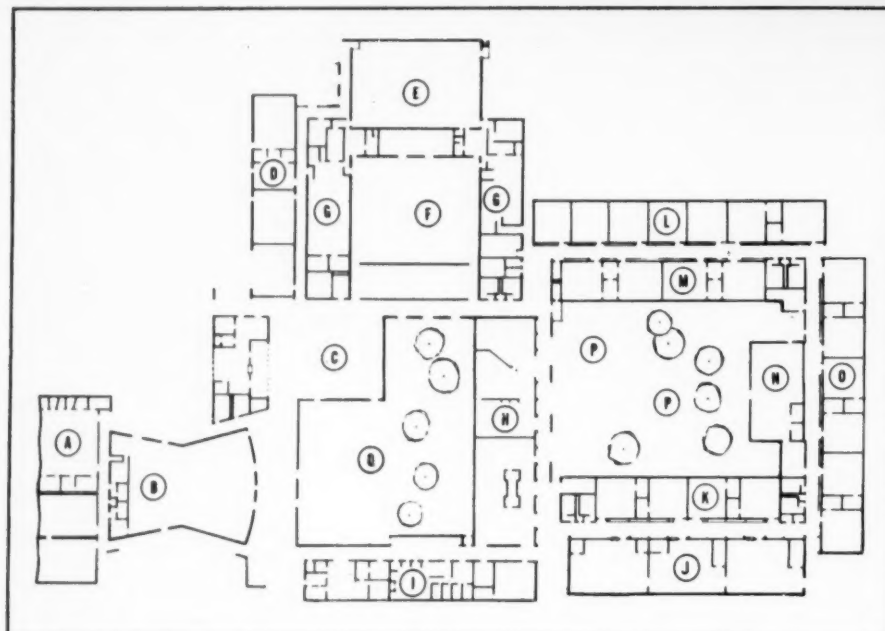
With Burgess-Manning Ceilings — Your Building Is Better — Your Building Budget No Bigger

In Michigan, Dearborn's Strikingly Modern William Stout Junior High School—

Designed by Architects Bennett & Straight Inc., Dearborn, Mich.—has built-in thermal comfort with Burgess-Manning Radiant Acoustical Ceilings.

The beauty, efficiency and completeness of this new educational unit is told graphically by the exterior view and the floor plan.

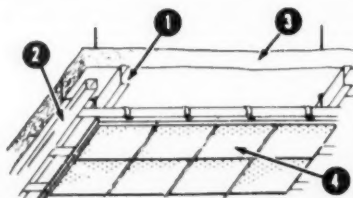
Providing a full complement of facilities for well rounded Jr. High activities, this building is being erected for the square foot price of an "average" school building—including the comfort and operating economy of Burgess-Manning Radiant Acoustical Ceilings.



- (A) MUSIC
Band
Music Practice
Choral
- (B) AUDITORIUM
Stage
Stagecraft
Social Corridor
- (C) DINING
Kitchen
Cafeteria
Teachers Dining
Multi-Use Area
- (D) SERVICE AREA
Boiler Room
Electrical
- (E) SWIMMING POOL
Bleachers
Public Entry
- (F) GYMNASIUM
Dual-Boys & Girls
Activities Room
Health Classroom
- (G) LOCKER ROOMS
Coaches Offices
Storage
- (H) HOME ECONOMICS
Meal Service Center
Studio
Living Area
Arts & Crafts
- (I) ADMINISTRATION
Supt. Office
Clerical
Health & Guidance
Classroom
- (J) INDUSTRIAL ARTS
Power Mechanics
Wood Shop
Machine Shop
- (K) ACADEMIC
Classrooms
Conference Rooms
- (L) CLASSROOMS
Math
Social Studies
- (M) CLASSROOMS
Science
Work Rooms
- (N) LIBRARY
Office
Work Room
- (O) ACADEMIC
Classrooms
Conference Rooms
- (P) STUDENT GARDEN PLOT
- (Q) INSTRUCTIONAL COURT
- (R) SOCIAL COURT

The simple construction of the
Burgess-Manning Radiant Acoustical Ceiling
is shown to the right.

- (1) Suspension Grid
- (2) Hot or chilled water circulation coil.
- (3) Sound absorbing blanket.
- (4) Perforated aluminum ceiling panels clipped directly to coil for efficient heat transfer.



Write for descriptive
Burgess-Manning Catalog
No. 138-2N



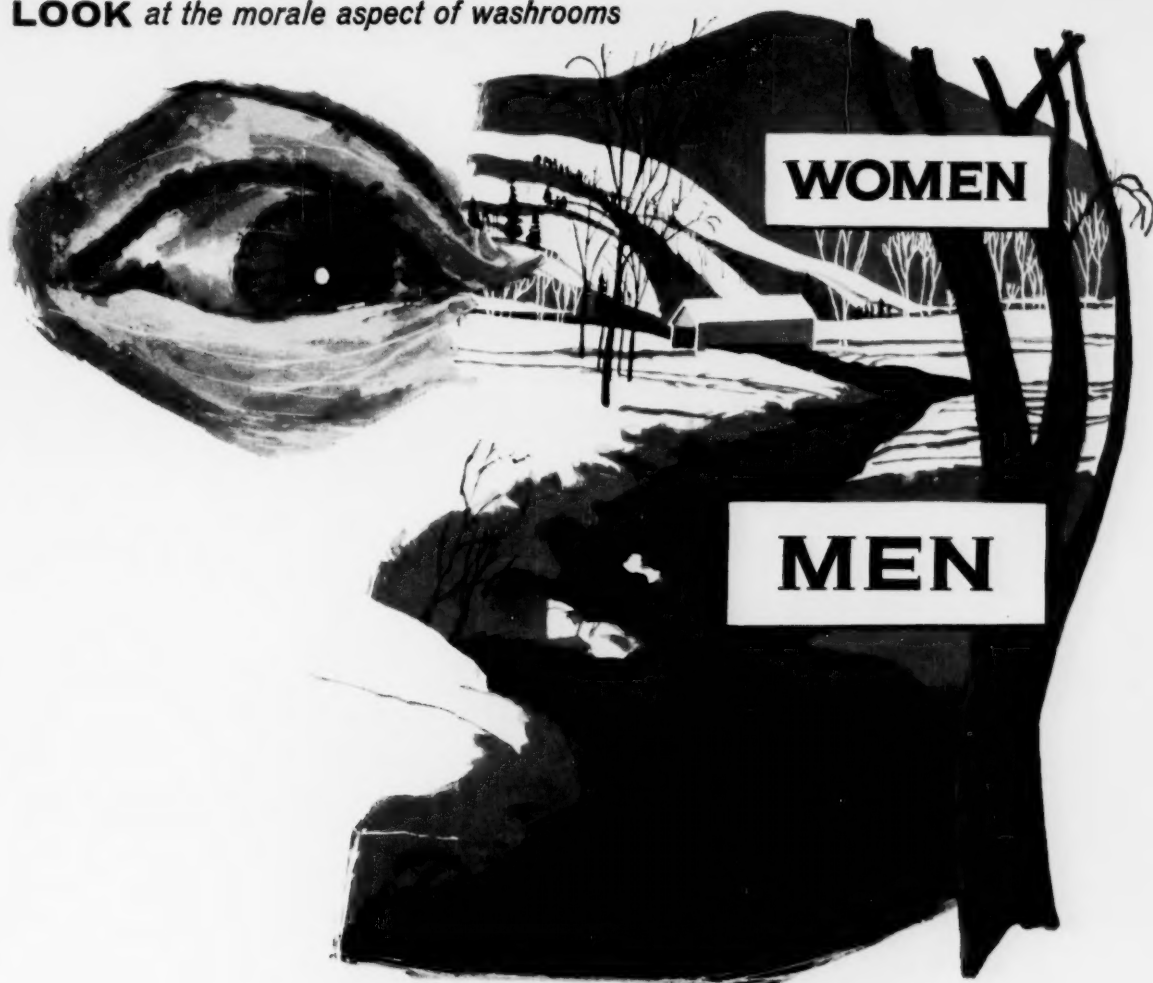
BURGESS-MANNING COMPANY

Architectural Products Division

749 East Park Ave., Libertyville, Illinois



LOOK at the morale aspect of washrooms



"HEALTHY" FRESHNESS

A clean, fresh atmosphere in washrooms pleases everyone. Makes washrooms "feel" clean. Reflects management concern for individual health and welfare.

This kind of freshness is easily maintained with modern automatic West deodorizers that contain a pleasantly perfumed aromatic fluid. These modern devices are neatly encased in white plastic. They are loaned, installed and maintained free of charge — as part of the WEST WASHROOM SANITATION PROGRAM.

The WEST WASHROOM SANITATION PROGRAM includes heavy-duty cleaners and disinfectants for facilities at regular intervals. Cleaners prevent drain clogging from salt buildup. Disinfectants kill micro-organisms that cause T.B., Polio, Typhoid, Influenza and other diseases.

Important too, the WEST PROGRAM gains the support of custodians so that they maintain high standards of sanitation.

The WEST WASHROOM SANITATION PROGRAM often saves enough to pay for itself. It includes an analysis of materials and methods that simplifies maintenance and leads to savings in towels, soap and other supplies. For full details, phone your nearby West office. Or mail the coupon to our Long Island City headquarters, Dept. 8.

- ☐ Send information on your WASHROOM PROGRAM.
- ☐ Have a Specialist phone for an appointment.

Name

Position

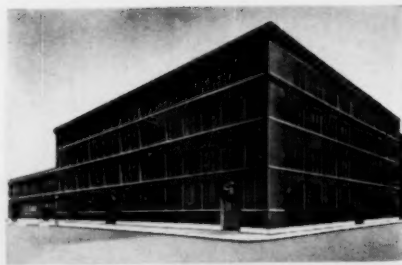
PROGRAMS AND SPECIALTIES
FOR PROTECTIVE SANITATION
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WEST DISINFECTING DIVISION

WEST CHEMICAL PRODUCTS INC.
42-16 West Street, Long Island City 1, New York
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WHITE-RODGERS COMPANY OF ST. LOUIS, MO. well-known manufacturer of automatic controls for heating, refrigeration, air-conditioning and appliances.



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ALL NECESSARY DATA IS CAPTURED into punched cards as an automatic by-product of posting the hard-copy accounting records.

"Our *National* System with Card Punch Coupler saves us \$4,800 a year... returns 50% annually on our investment."

—White-Rodgers Company, St. Louis, Mo.

"We feel that our National System is the fastest, most efficient system on the market today. With our National "31" and Card Punch Coupler, we are able to automatically process approximately 2000 Voucher Checks and 6000 distribution cards per month.

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THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio

1039 OFFICES IN 121 COUNTRIES • 75 YEARS OF HELPING BUSINESS SAVE MONEY



“Wish Our School Had These Keen Showers”



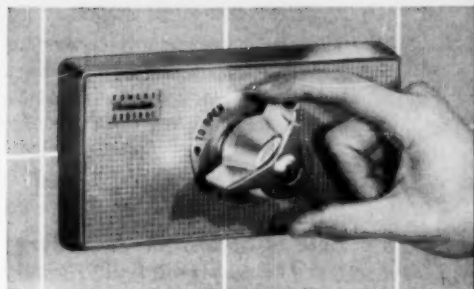
The game is over, and to the home and visiting teams, bathing is part of the fun. It's "time out" now to relax and refresh.

But it's never "time out" when it comes to safety, especially where eager students are on their own, and hot water can be as dangerous as it is plentiful. That's why built-in protection is so vital in school shower systems and why Hydroguard individual thermostatic controls have become a standard for safety.

The Hydroguard's simple, single-dial control is foolproof in the hands of any student. A safety limit prevents delivery of scalding water, even if the dial is accidentally turned to maximum hot. Should the cold water supply fail, the Hydroguard instantly shuts off. Equally important, it prevents fluctuation in water temperature. This eliminates a frequent cause of shower room accidents — scalding or injury due to slipping or falling in an effort to escape bursts of hot or cold water.

A safe shower system is a "Hydroguarded" shower system. Get the facts. Request illustrated booklet, *Safer Showers* and ask for slide film showing of *Safe Shower Systems*. Contact The Powers Regulator Company, Dept. 1259, Skokie 7, Illinois.

Standard For
Safety In
Shower Systems



POWERS

Hydroguard®

Individual Thermostatic

Controls

POWERS

*Specialists In Thermostatic Controls
Since 1891*

THE POWERS REGULATOR COMPANY,
Dept. 1259, Skokie 7, Illinois

- ☐ Send illustrated booklet, "Safer Showers".
☐ Arrange for showing of new slide film, "Safe Shower Systems".

Name _____

Title _____

Address _____

More FIRE SAFETY in our schools

Safety built-in with good acoustical ceiling construction

These unretouched photographs vividly demonstrate the comparative fire retardant qualities afforded by an acoustical ceiling constructed with acoustical tiles cemented to a backing material like gypsum board.



1. Above this corridor the acoustical tile was hung in a metal suspension frame, without a solid backing material. Here, the flames quickly burned through. The spline ceiling fell out altogether and the steel joists above were badly damaged by the flames.



2. Above this corridor acoustical tile was cemented to a gypsum board backing which, as shown here, has been pulled away to reveal the steel joist framing, undamaged by the fire. (Note: Both photos taken after fire in Brighton High School, Birmingham, Alabama.)

Fire safety plus better sound control

Both of these acoustical ceilings were installed primarily to control sound. But only the ceiling with the acoustical tile cemented to a solid backing material provided the best in sound control, plus a highly desirable factor of fire safety.

Solid-backed acoustical ceilings offer many advantages: effective sound isolation (in addition to good absorption), low maintenance cost, quick access to utilities (services), low cost partitioning (with economical flexibility).

Economical, too

Although the safety of human life is a primary consideration in the design of a school structure, economy is always to be desired. The suspended acoustical ceiling that specifies a fire-rated backing material can, as in the case of this school fire, prevent costly property damage. Note in Picture 2 above how the solid-backed ceiling protected the steel joists.

Furthermore, in some localities it will be found that properly constructed acoustical ceilings, using a rated backing material, substantially reduce insurance premiums. In fact, in some cases a premium penalty is imposed when a suspended ceiling does not conform to fire-rated specifications.

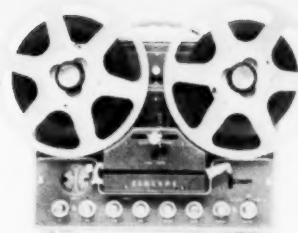
How much fire safety do you get from the acoustical ceilings in your schools, present or contemplated? How effective are they as sound absorbers — and barriers?

It is most important to check these points with your architect.



A guide to good acoustical ceiling design.
Free copy available from
The Schuyler Hopper Company,
12 East 41st Street, New York 17, N. Y.

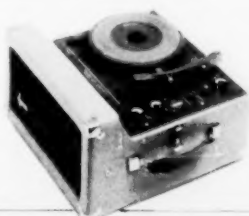
NEW



STEREO TAPE RECORDER

For language, music, speech instruction, Newcomb introduces Model SM-310, cybernetically engineered for intuitive operation. Simple enough for students to operate. Easiest on tape. Records live stereo as well as recorded or broadcast material, and 1/2 track monophonic, 2 speeds, 10 1/2" reel capacity.

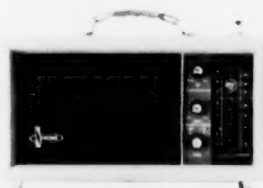
NEW



CLASSROOM HI-FIDELITY PHONOGRAPHS

Engineered specifically for day-in-and-day-out classroom use, new model Newcomb phonographs are more dependable than ever. New 4 speed motors, bigger speakers, more power, rubber record mat—a multitude of advanced features. Several models.

NEW

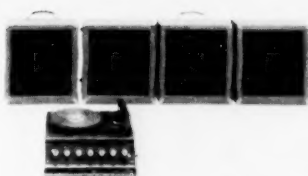


CLASSROOM HIGH-FIDELITY RADIOS

The finest table model radio ever built for classroom is the Newcomb AM and FM Model AFM-1500. Sensitive, powerful, stable. High acoustic output. New tone control for optimum intelligibility. Built-in AM and telescoping FM antennas. AM only model also available.

NEWCOMB

NEW



PORTABLE TRANSCRIPTION PLAYER P.A. SYSTEMS

There's a new Newcomb TR Series player for every use—from music room to athletic field. Nineteen models, choice of ceramic or magnetic cartridge—one to four speakers, power from 10 to 56 watts. Include every feature you have asked for in a portable system.

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HEADPHONE LISTENING CENTER EQUIPMENT

For language study, library use, group within-a-group listening, Newcomb brings you the most satisfactory listening center equipment yet offered. Eight red and black headphones of conventional design, combining high quality with low cost, supplied in compartmented case.

■ NEW STYLING—GRAY AND CINNAMON BROWN ■ NEW MOTORS, TURNTABLES, PICK-UPS, REPRODUCERS ■ Same old quality, dependability, safety... Still built with crackproof plywood cases, fabrikoid covered, metal corners, spring-suspended feet, transformer powered—all of the features which give that special meaning of quality to the name **NEWCOMB**

Note: Handy printed bid specifications are also available.

NEWCOMB AUDIO PRODUCTS CO. Department NA-12.

Gentlemen: Please send me data on the following:

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| <input type="checkbox"/> CLASSROOM RADIOS | <input type="checkbox"/> AM & FM |
| <input type="checkbox"/> TRANSCRIPTION PLAYER P.A. SYSTEMS | <input type="checkbox"/> AM ONLY |
| <input type="checkbox"/> HEADPHONE LISTENING CENTER | |

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ONE STANDS OUT

The science of seas, seeds or satellites could well be the all-consuming interest of this young scientist-to-be. The scientific design and manufacture of posture-correct seating and work desks are the prime concern of Virco Manufacturing Corporation. The Virco #200 Series classroom chair and the Virco #7961 single pupil desk have long been favorites with school administrators everywhere. Virco designs and manufactures school furniture for "kindergarten through college". For your free copy of our new full-color catalog with complete specifications, write to Virco Manufacturing Corporation, P.O. Box 44846, Station H, Los Angeles, Calif., or Virco, Conway, Ark.

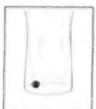
VIRCO



Reprints of this page, suitable for framing, are available free upon request, by writing to Virco Mfg. Corp.

Libbey Esquire Tumblers offer 4 Big Advantages...

- 1 "Safedge" glass is guaranteed: "A new glass if the rim of a Libbey 'Safedge' glass ever chips!"
- 2 Curved side wall design bulges slightly near top, protects rim if glass is turned over.
- 3 Heavy base, handsome mannish design, make Esquire glasses easy to hold.
- 4 Esquire Tumblers are available plain or fluted in a complete range of eight sizes.



The attractive shape of Esquire Tumblers adds a distinctive touch to beverage service, and every glass can be decorated with your emblem or motif for added prestige. Esquire assures operating economy, too, because of its amazing durability.

Libbey is the exclusive choice of leading restaurants because it combines customer-pleasing beauty with management-pleasing durability and economy.

For full information on Esquire and all the other economical Libbey patterns, see your Libbey Supply Dealer, or write to Libbey Glass, Division of Owens-Illinois, Toledo 1, Ohio.



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Can be crested with your own crest, trademark, or slogan for added distinction.

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When their lives are in your hands...

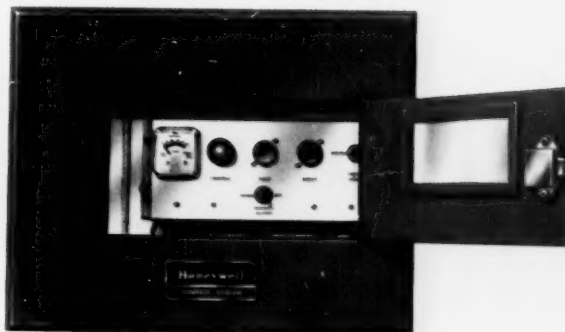
Give them the 4-way protection of a Honeywell Fire Detection and Alarm System



Automatic Detector



Manual Station



W247 Panel

1. DETECTION. Honeywell automatic detectors sense a fire within a few seconds and automatically set off the alarm at the central panel. These detectors can be placed anywhere, including such hidden danger areas as broom closets and supply rooms. They give your pupils and school property day and night fire protection. For double

security, Honeywell manual stations can be placed in strategic locations for manual sounding of the alarm.

2. PINPOINT LOCATION. Honeywell fire alarm systems can pinpoint the location of the fire either with colored lights as shown below, or by means of a coded bell system.

3. FAIL SAFE SYSTEM. Honeywell Fire Alarm Panels, like the W247 or the W237 (shown at below left) can sound the alarm even with a double break or ground in the detector wiring. If the detector wiring is damaged so that an alarm could not sound, a trouble light glows at the panel.

4. AUTOMATICALLY NOTIFY FIRE DEPARTMENT. To save precious minutes in getting the fire department to your school, Honeywell Fire Alarm and Detection Systems can be connected to automatically sound the alarm at your nearest fire station.

DOES YOUR SCHOOL HAVE THIS 4-WAY FIRE ALARM PROTECTION?

If your school does not have all four of the fire alarm system features above, your pupils and school property do not have adequate fire protection.

If the fire alarm system in your school doesn't give you this completely automatic 4-way protection, call your nearest Honeywell office today or write Honeywell, Minneapolis 8, Minn. A Honeywell Fire Alarm Specialist will tell you about the Honeywell Fire Detection and Alarm System and Honeywell's service plan that assures you of complete worry-free installation and maintenance.



Honeywell



First in Control

more for your money...

Rauland all-facility central control sound systems

You get *more* in a RAULAND School Sound System—more versatility, more durability, more value. Get every desirable feature for effective administrative control, educational program distribution and 2-way communication. Make your choice a money-saving RAULAND Sound System.



Model S752-96
Latest 2-channel System; provides complete program distribution service, including intercom; with FM-AM tuner and stereo record changer; expandable capacity for up to 120 rooms

designed
to stay modern
for years

your choice of every
desirable feature and program facility

RAULAND Sound Systems are available to fit the exact needs and budget of your school. Available features include:

FM-AM Radio—distributes any radio program on FM or AM to any or all rooms

Phonograph—distributes phono program (choice of transcription player or record changer); also may be used with tape recorder

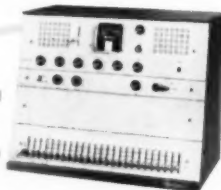
Microphones—selects and distributes programs from multiple microphone locations

Intercom—permits 2-way conversation with any or all rooms—privacy feature available

Special Features—Emergency Switch; all-call; provision for signal clock; telephone intercom; fire-disaster alarm facilities; remote control, etc.

Rauland
Pioneers in
School Sound

Model S600
Budget-minded Dual Channel System—ideal for smaller schools—complete program distribution facilities plus intercom, for up to 46 rooms



There is an ideal RAULAND Sound System to fit the exact needs and budget of your school. Ask for full information.

RAULAND-BORG CORPORATION

write for
details

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3535 W. Addison St., Chicago 18, Ill.

☐ Send full details on all RAULAND School Sound Systems

Our school has _____ classrooms.

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School _____

Address _____

City _____ Zone _____ State _____

AT THE
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diners and dishes move
FASTER AT LESS COST



WITH AN OLSON CONVEYOR SYSTEM

An Olson Conveyor System in beautiful Garner Hall helps to feed more students efficiently. Soiled dish trays are self-bussed by diners . . . placed on the moving belt conveyor at conveniently located loading stations . . . and move *without further handling* into the separate dishwashing room. The Olson System saves bussing costs, insures faster turnover of diners and quicker clean-up, and greatly reduces dish breakage.

The gleaming, stainless steel Olson installation complements the building's modern decor beautifully. It's safe and sanitary . . . fully-enclosed Olson conveyors and cabinets are so easy to keep clean and bright.

This stream-lined Olson System puts "production-line" efficiency into the dish-handling operation. It eliminates sporadic dish "pile up" . . . trays flow evenly to scrapping table and the last soiled dish is washed within minutes after the last diner leaves.

(All photos courtesy University of Illinois
Photography Department)

Send for Bulletin 1505—"Dish Handling Plans for
Cafeterias of Schools, Colleges and Universities"

OLSON CONVEYORS

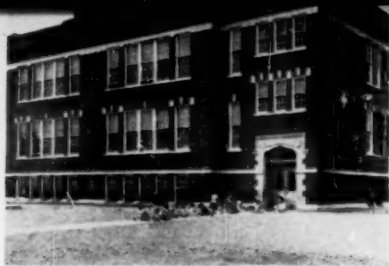
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SAMUEL OLSON MFG. CO., INC.

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DIVISION OF CHERRY-BURRELL CORPORATION



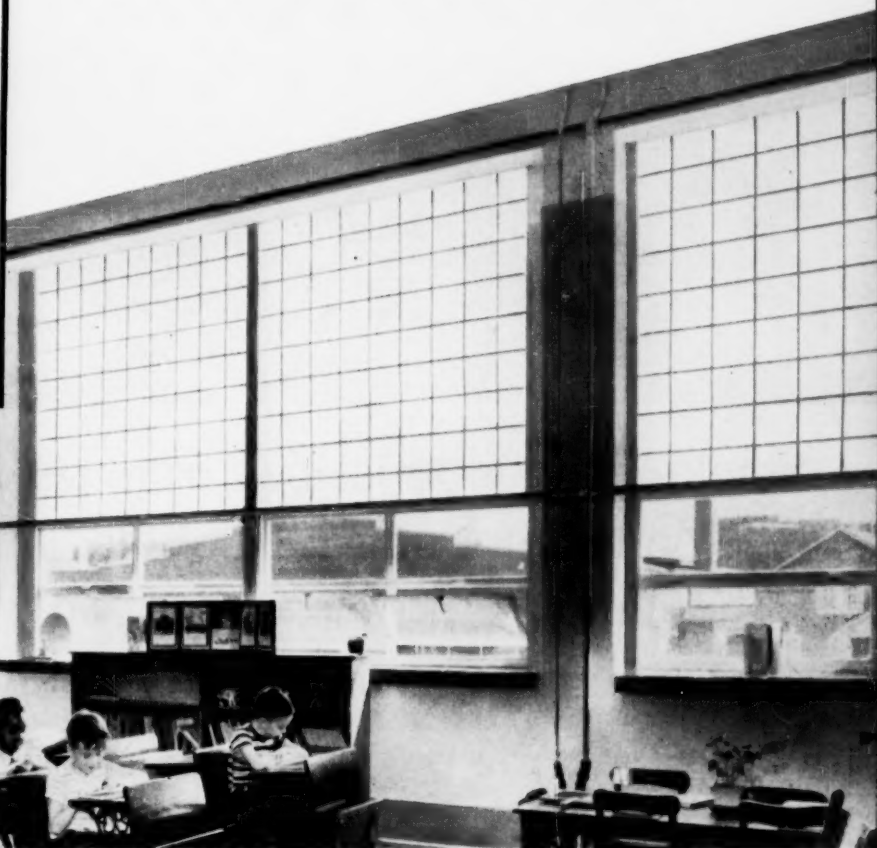
BEFORE window modernization with glass block, worn-out window sash created a costly maintenance problem at the Wahkonsa School, Fort Dodge, Iowa.



AFTER sash replacement with panels of Owens-Illinois Glass Block, maintenance costs were greatly reduced. The smart simplicity of glass block added modern, functional beauty.

OWENS-ILLINOIS GLASS BLOCK...

*for "new school" beauty outside,
controlled daylighting inside!*



INSIDE, glass block plus vision strip keep brightness at comfortable levels, provide vision and ventilation. Eye-straining glare and harsh contrasts are eliminated.

The problem you face is a common one: the modern features of a new school are undeniably attractive—but—your budget dictates low-cost modernization of your old, but still structurally sound, building. The best solution: Owens-Illinois Glass Block.

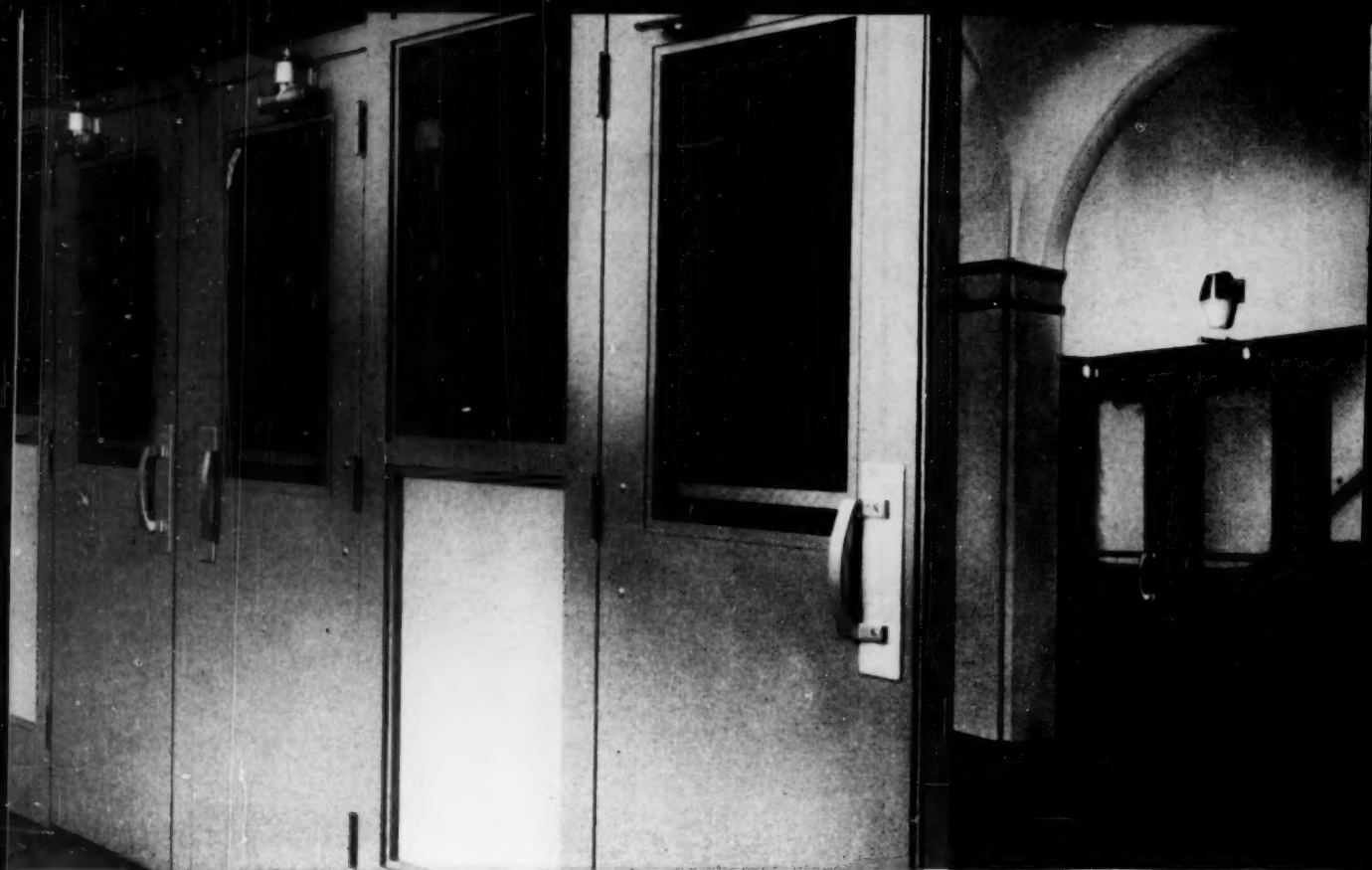
These photos demonstrate two of many benefits glass block can add to your present school. Exteriors get an architectural "face-lifting"... classrooms glow with cheerful, diffused daylight. Old-fashioned win-

dow shades are not needed. Costly window maintenance is virtually eliminated from your budget. Heating and lighting costs nose-dive because glass block insulate and daylight so efficiently.

Don't overlook the outstanding advantages of window modernization with Owens-Illinois Glass Block. For complete information, write Kimble Glass Company, subsidiary of Owens-Illinois, Department NS12, Toledo 1, Ohio.

OWENS-ILLINOIS GLASS BLOCK
AN **®** PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO



Smoke barriers, specified from the **Aetnapak**® catalog of stock components, enabled Troup Junior High School and 18 other New Haven, Conn. schools to quickly comply with fire code regulations. For the

AETNA

Aetna Steel Products Corporation, 730 Fifth Avenue, New York 19.



CONTRACTOR: R. A. CIVITELLO COMPANY • ARCHITECT: LESTER J. A. JULIANELLE

70-foot-long smoke screen-stairwell enclosure shown above, **Aetna Steel** delivered frame sections, doors and hardware within a week. No special engineering drawings or custom production were required.

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CORPORATION
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Please send free catalog of
AETNAPAK custom-quality, in-stock
steel doors, frames and hardware.

Name and Title _____

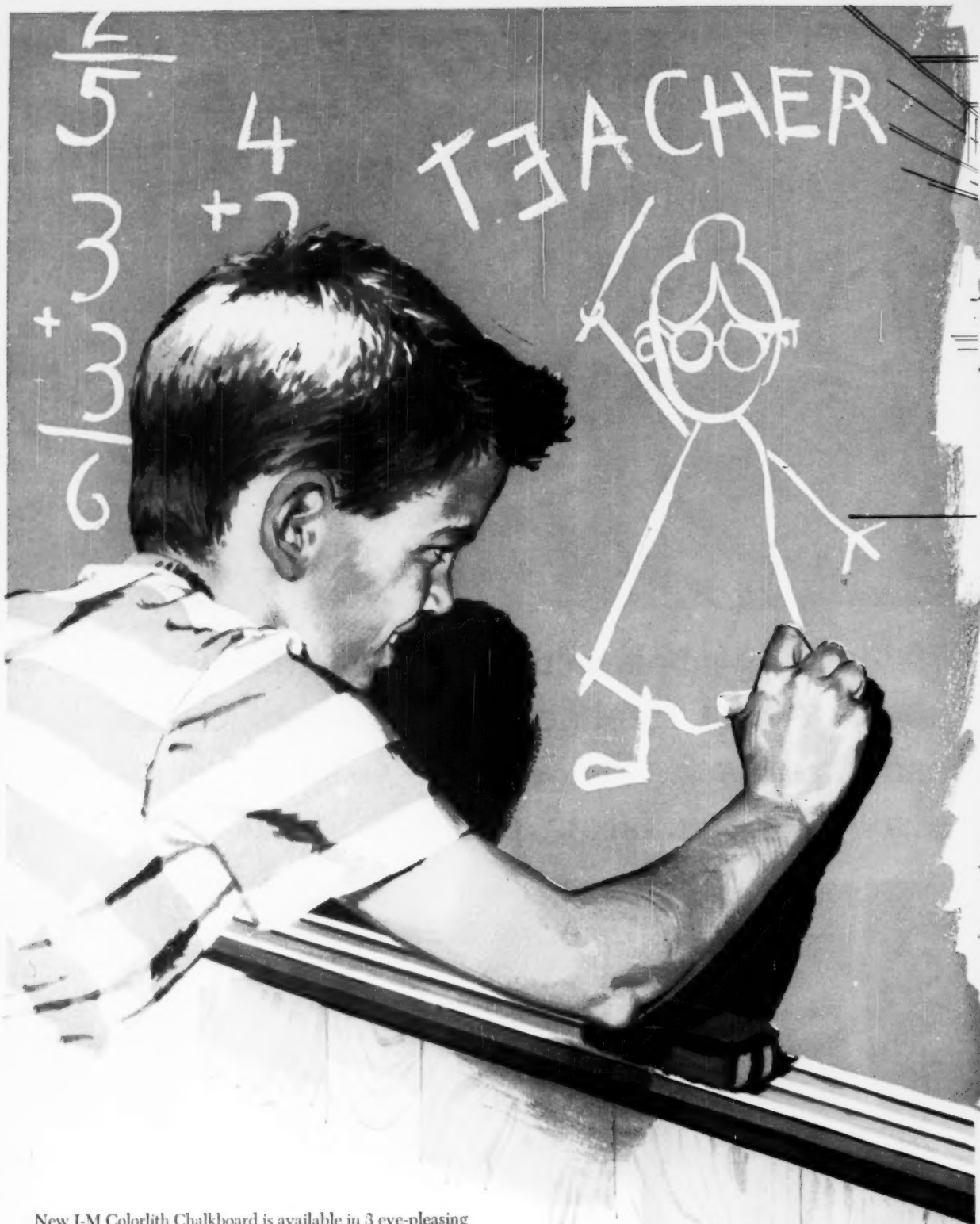
Company Name _____

Address _____

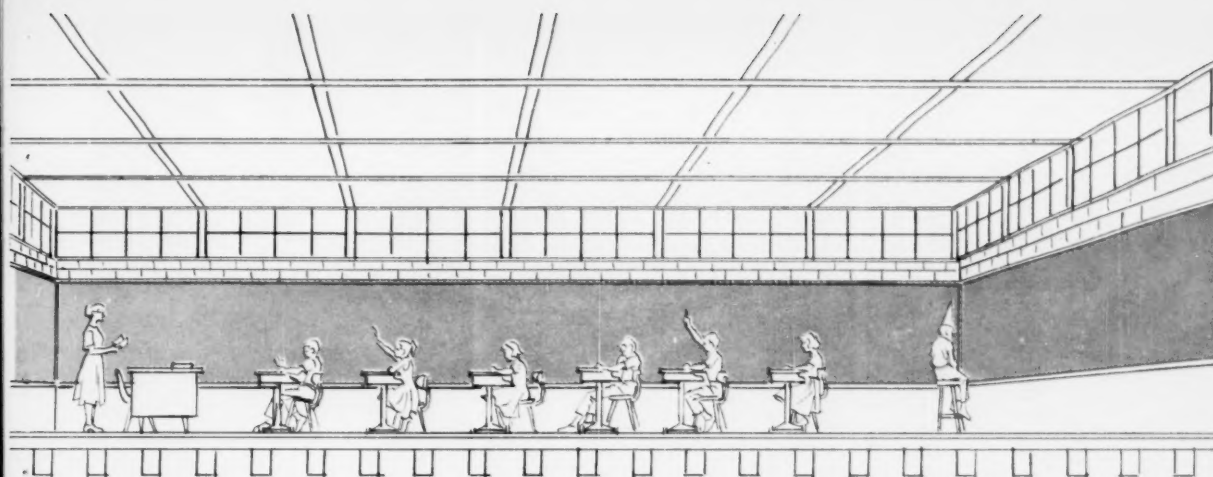
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State _____

Write for complete **Aetnapak®** catalog:



New J-M Colorlith Chalkboard is available in 3 eye-pleasing colors: Cyprus Green, Charcoal Gray and Cameo Brown.



New Johns-Manville *Colorlith*[®] Chalkboard

Never before has one material solved so many classroom problems

Architects say—Handsome color and texture run all the way through this homogeneous sheet . . . can't wear off.

Teachers say—Colorlith makes an ideal smooth, hard writing surface—erases easily—reduces writing fatigue.

Pupils say—We like the color . . . it's easy on the eyes . . . and we can always see what's written on it.

Maintenance Superintendents say—Colorlith is easy to maintain. Wash occasionally with clear water. Remove stains with household cleansing agents.

School Supervisors say—Colorlith chalkboards have the strength and durability to withstand daily classroom usage and give many years of service.

Taxpayers say—Meets the requirements of premium quality boards at low prices . . . and it's strong enough not to need any expensive backing.

Everyone connected with today's school problems of cost vs. quality finds an answer in new J-M Colorlith Chalkboard. Here is a dense, new homogeneous sheet developed to provide the same smooth, hard writing surface and light reflectance values as premium chalkboards—but at lower cost.

Colorlith gets great strength from integral mixing of Portland cement, carefully selected asbestos fibers, and selected pigments. It can be used in $\frac{1}{4}$ " thicknesses without expensive backing to make it rigid. Accurately butted joints need no divider strips which could hinder writing. Comes fully finished and ready to use as a self-supporting wall member. Its natural finish is durable—colors and pattern cannot be scratched off. Withstands heat, flame, moisture (fully washable) . . . acids and solvents in working concentrations.

Write for Colorlith specification sheet IN-230A and brochure EL-62A. Johns-Manville, Box 14, New York 16, N. Y. In Canada, Port Credit, Ontario.

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continuous tops
Seamless continuous 14 Ga. stainless steel tops—
so easy to keep spotless

decorator fronts
Colorful fronts in a wide array of patterns and materials
... custom-quality without custom price penalty!

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DESIGN AND DEPENDABILITY**

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CUSTOM MODULAR
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World's largest manufacturer of fountain and counter food-service equipment



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LOOKING FORWARD

Education's Billion Dollar Experiment

BETWEEN one and two billion dollars will be spent in 1960 for new *high school* buildings — and every dollar of this capital outlay is an experiment!*

One might logically ask, isn't *all* schoolhouse designing a gamble or an experiment? Why is the discussion limited to secondary education? The answer is twofold: (1) The problem is not so serious for elementary schools, and (2) more and more of the capital outlay for school buildings is going into the secondary area.

For the primary and elementary grades, there is reasonable agreement that nothing can take the place of the living teacher. The young child needs personal contact with a mature and understanding adult (*in loco parentis*). Any amount of audio-visual aids, educational TV, or clerical aid for the teacher cannot alter the situation materially. And so the self-contained classroom as the principal housing for kindergarten, primary and elementary grades is a reasonable "gamble" for the design of elementary schools in the next two decades.

But it's a different story and a different problem for secondary education! Advocates of widespread use of television for teaching purposes believe that older students can be taught some subjects quite effectively in large groups. Others are saying that the process of learning for the teen-ager should involve more small-group discussions. From other research comes the debated question as to whether groups of 40 or 50 can be taught effectively by one teacher, assisted by a teacher aide. Some are quite serious about the use of individual teaching machines through which the child would be his own instructor. Not to be ignored are the beliefs of others that increasingly the education of the teen-ager should take place within the *entire* community, and that much of his learning should consist of firsthand observations and visitation over much of the geographical surround of the school. All this has implications for the manner in which the high school curriculum is organized and put into action.

A commendable effort to compile and interpret proposals for tomorrow's high school has been made by a commission appointed by the executive committee of the National Association of Secondary-School Principals.

*The U. S. Office of Education reports that for the school year 1956-57 (the latest data available) the total outlay for public school buildings was \$3,307,000,000. It is conservatively estimated that the total for 1959-60 will be between \$3.5 and \$4 billion. John Cameron, chief of the School Housing Section at U.S.O.E., estimates that from 40 to 50 per cent of current outlay for public school buildings goes for high school construction. On this basis, the cost of new high school buildings in 1959-60 will be between \$1.5 and \$2 billion.

The work of the commission, including the publication of its report, was made possible by a grant from the Ford Foundation. The study group is officially known as the Commission on the Experimental Study of the Utilization of the Staff in the Secondary School. The findings of the commission have been written by its director, J. Lloyd Trump, and published in a booklet entitled: "Images of the Future, a New Approach to the Secondary School."

This report became the educational specifications for 10 different concepts of the high school of tomorrow, as envisioned by 10 architects nationally known for their outstanding work in schoolhouse planning. These ideas, in the form of floor plans, sketches and models, were presented a few weeks ago at an architectural workshop at the University of Michigan, conducted on behalf of Educational Facilities Laboratories, Inc., an agency of the Ford Foundation.

Some of the proposed buildings emphasized wide open spaces within which almost any kind of instructional areas might be organized. This idea was identified as the big barn, the big envelope, or the loft theory. Others involved a great amount of highly specialized spaces. Nearly all the proposals included the idea of individual stalls or booths for every student.

The Trump report assumes that "the class of 25 to 35 — frequently found in today's schools, and often highly esteemed — will have no regular place in the secondary school of tomorrow." The report argues that a class of 25 is unnecessarily *small* for large-group instruction activity — that it is too *large* for effective study, and too *large* for successful discussion. The secondary school of the future, states the report, "will be organized around three kinds of activities: large-group instruction, individual study, and small-group discussion. Large-group instruction will occupy about 40 per cent of the student's time."

Another 40 per cent of the student's time will be allotted to individual study. The remaining 20 per cent of the time will be scheduled for small-group discussions, to take place in small rooms suited for this purpose. Here, then, we have the physical pattern for the school plant.

Other chapters are just as courageous in breaking with tradition. For example, the report predicts there will be much less scheduling of students in 40 to 55 minute class periods. Class groups will meet an average of only 18 hours a week instead of the present 30 hours. The instructional staff will include both general teachers and staff specialists. There will be instruction as-

sistants, clerks, general aides, and community consultants. The administration of the secondary school of the future will be much more complicated. The salary schedule may range from as low as \$1.30 per hour for general aides up to \$5500 for general teachers, and an average of \$8000 for teacher specialists. We refer to these proposals briefly and quite incompletely, our only purpose being to note that not merely the design but nearly every phase of planning for tomorrow's high school is a great experiment.

Probably the only way we will ever find out whether these ideas are practical and desirable is to try them. There is some research to support these contentions, but for the most part the proposals are based upon assumptions, beliefs and occasionally the pet projects of special interests.

We challenge the assumption that every teen-ager should have an individual cubicle or a compact office in which he would spend up to 40 per cent of his time. We need to know a lot more about teen-age behavior before we can be sure of the social maturity and the self-discipline that this kind of program anticipates.

Any assumption that a definite amount of time or space within a school plant should be allocated to large-group instruction and another definite area of time and space should be reserved for small-group discussions must be recognized as conjecture or rationalization, rather than being based upon valid research. We need to learn more about how teen-agers learn in groups, large or small, before we can commit our high schools to a fixed distribution of spaces.

Our plea then is this: Let's make the great experiment in high school design simultaneously a great project in research. In some degree these architectural plans for tomorrow's high school will find form in actual buildings and in actual school programs. We will need accurate and adequate observation of what happens. Documentation — if you please — or case studies.

These observations can best be made by an outside agency having no vested interest in the school itself. Without a basis for evaluation and comparison, we will be repeating both old and new mistakes, only they will be much bigger and more costly.

The Meaning of Christmas

WE HAVE been seeking a new thought for a Christmas editorial. Most editorials about this religious holiday are reviews of things that have been said before — and deserve repeating. Appropriately, we might decry again the extreme commercialism that now dominates the Christmas scene. Stores start their sales propaganda even before Thanksgiving Day, and advertisements pressure one to buy things that aren't needed so that people who receive these gifts also must buy things that aren't needed, to send in return. An avalanche of commercially produced Christmas cards swamps the mails, but most of the senders are too busy to add a personal message. Christmas has become, for too many of us, a period of extra expenses, extra work, and exhausting festivities.

Fortunately, this is only part of the story. We are just beginning to understand the real religious significance

of Christmas Day. Brought up in a church atmosphere, we have been puzzled by the apparent lack of historical documentation to prove the existence of an historical Christ, other than the Bible itself. Apocrypha and folklore about the life of Christ on this earth are given much religious significance. But such evidence is not accepted by the historian.

Historically, we really don't know the day or the year of Christ's birth. Collier's encyclopedia reports that "the Church at Rome assigned December 25 as a date for the celebration of the feast [commemorating Christ's birth] possibly about A.D. 320 or 355. . . . The choice of December 25 was probably influenced by the fact that on this day the Romans celebrated the feast of the sun god."

The year of 1959 A.D. more likely is the year 1963 or 1964, if dated from the birthday of Christ. Collier's explains: "The dating of the Christian era is based upon the sixth century computation of a monk who, by miscalculation, assigned the wrong year to the birth of Christ." States this source: "Herod the Great, who was reigning when Christ was born, died in 4 B.C., and obviously the birth cannot have taken place four years later."

When friends referred us to that great book by Albert Schweitzer, "The Quest of the Historical Jesus," we thought, at last, we will find the evidence. But we didn't, and neither did Schweitzer. At first, we were reluctant to accept his conclusions, but more and more his answer satisfies our own quest. At the end of 400 printed pages of analysis, he writes: "We thought that it was for us to lead our time by a roundabout way through the historical Jesus, as we understood Him, in order to bring it to the Jesus who is a spiritual power in the present. This roundabout way has now been closed by genuine history. . . . But the truth is, it is not Jesus as historically known, but Jesus as spiritually arisen within men, who is significant for our time and can help it. Not the historical Jesus, but the spirit which goes forth from Him and in the spirits of men strives for new influence and rule, is that which overcomes the world."

Arnold Toynbee, the great historian, brings us similar assurance in his "An Historian's Approach to Religion." From his vast understanding of all known history, Toynbee, too, offers a spiritual rather than an historical explanation of man's attempt to discover his creator. He writes: "Man is confronted by something spiritually greater than himself which, in contrast to Human Nature and to all other phenomena, is Absolute Reality. And this Absolute Reality of which Man is aware is also an Absolute Good for which he is athirst. Man finds himself needing, not only to be aware of It, but to be in touch with It and in harmony with It. That is the only condition on which he can feel himself at home in the world in which he finds himself in existence."

This is not a new thought. It's a different way of expressing a truth that people have been discovering for nearly 2000 years. But for us, and perhaps for you, it is a new emphasis on the meaning of Christmas.

The Editor

SIMULATED HORROR
TAUGHT
EVACUATION IN
MOCK SCHOOL FIRE

LEO E. BUEHRING

"INJURED" PUPILS lie on blankets spread on school grounds pending arrival of ambulances and other vehicles.



Milwaukee Journal Photo

FIRE drills are well and good up to a point. That point is: the moment a serious fire is *discovered*.

At such moment a blocked exit or any single environmental change from earlier drills may upset all previous plans and directives. The children may panic. In fact, they are almost certain to panic, for that reaction has been demonstrated.

Lt. Robert McGrath, Chicago fire evacuation specialist, after alerting the nation's hospitals to the inadequacy of their fire drills, is moving into the schools with his dynamic demonstrations. Lt. McGrath can show that conventional fire drills are not enough. He advocates evacuation exercises under conditions simulating an actual conflagration.

The first communitywide disaster drill in which public schools furnished the "victims" took place last August 20 at Waukesha, Wis., less than an hour's ride west from Milwaukee.

(Cont. on Next Page)

"FIRE VICTIM" (right) is suffering from a "compound fracture" of the right arm after jumping from a "burning" building before firemen arrived.



Milwaukee Journal Photo

Photo by the Milwaukee Sentinel



SOME "VICTIMS" jump from the school's first floor into a fire net before all ladders are set up. Note firemen in window background are wearing gas masks

During this dramatic demonstration some 150 children were evacuated from Barstow Elementary School. Sixty of these children were carried down ladders as the firemen rescued them from "smoke and fire entrapped classrooms." The "injured" were rushed to Waukesha Memorial Hospital where 35 doctors and 50 nurses and nurse's aides had been alerted for their arrival.

Involved in the Waukesha "dry run" of a school fire were 500 persons. These included city police, the sheriff's office, the city fire department, area civil defense authorities, the local hospital, the Red Cross, and volunteer rescue teams from business, civic and service organizations. Supt. R. G. Hein of Waukesha public schools was active in planning the disaster drill and Rudolph A. Kohta, principal of Barstow School, helped supervise the evacuation.

The Waukesha approach to a school fire may well set the pattern for other cities to follow, Lt. McGrath believes. Supt. Hein agrees, and comments as follows:

"The evacuation of Barstow Elementary School as part of our community disaster drill was very effective. It offered the schools a fine opportu-

REALISTIC "INJURIES"
(result of makeup skillfully
applied as on child at right)
ranged from lacerations
to double fractures and
just plain blackened faces.



Milwaukee Journal Photo

nity to work cooperatively with all community forces. As a result of the mock fire, we have instituted some new safety policies. In Waukesha schools fire drills will no longer be monotonous details."

Lessons Learned

Following Project Waukesha, Supt. Hein and Principal Kohita offer to other school administrators two important suggestions:

1. Anyone discovering fire or smoke should first sound the school fire alarm. Teachers, office workers, maintenance employees, all should be instructed to act on their own initiative in this matter. *Don't restrict this duty to the principal's office.*

2. Notify the fire department next — but not until after the school alarm has been sounded.

The Waukesha administrators suggest that, in anticipation of a possible emergency, a school should file with the local fire department a list of approaches to the school building. This list would give the location of the main entrances, would show the most logical approaches for fire equipment, and would indicate areas where evacuated children are to be grouped.

Under such plan firemen could get to the danger point quickly, and children would not be endangered by approaching fire engines and apparatus.

Since the mock fire, Waukesha schools have fire drills monthly or oftener. Principals are asked to follow these new procedures:

1. Fix a theoretical fire location for each drill. Block certain exits and let teachers and pupils use alternate evacuation routes. This brings resourcefulness into the drills.

2. Instruct each teacher to be sure she knows where each of her pupils is at all times. When a fire alarm sounds and she and the children evacuate the classroom, she is to take with her the class attendance book, as well as a check-off sheet of class members. This sheet is to be posted in each classroom on the wall nearest the door.

3. Require each teacher to take her group to a separate, previously designated location on the school grounds or beyond. Grouping areas must be so planned as to remove the children from both fire and traffic hazards. In some instances evacuation will not be complete until the children have been taken across near-by traffic lanes.

4. Keep each group of children to-

gether in its assigned area. Teachers automatically will mark the roll call sheets and have them ready for the principal, who will maintain contact with all groups. The attendance book will show which pupils are absent at the time of the alarm.

5. In case of injuries during an actual emergency, furnish a list of injured promptly to the Red Cross unit.

The Waukesha mock fire suggested that it would be a wise course to compile a list of pupils safely evacuated so that parents can be notified and their anxiety relieved. At intervals of five minutes, these lists could be read over local radio and television stations. Parents would be urged to stay at home and await such word rather than tie up telephone trunks or attempt to get through police street blocks to the hospital.

Why Project Waukesha?

To appreciate fully the objectives of Waukesha's realistic disaster drill, it is necessary to understand the thinking of Lt. McGrath and local school and civic leaders.

Lt. McGrath had spent five years in developing principles of fire safety and evacuation of hospital patients and in



teaching these principles and technics to hospital administrators and personnel, when in his hometown 95 persons lost their lives in Our Lady of the Angels School fire in December 1958.

In Chicago, as in all other cities, the fire department stepped up school inspections. On nine such inspection assignments, Lt. McGrath was able to observe fire drills. He regarded them as orderly and purposeful. Yet he realized that in a real fire with billows of smoke and intense heat cutting off corridors and stairway exits the three-minute march to the open air and safety might become a rout or a tragedy.

A week later Lt. McGrath returned to one of these schools with two red carpenter sawhorses. Unknown to teachers and pupils, he set these wood sawhorses in front of a stairway exit, blocking it off. Once again the fire

FIREMEN RESCUE school victims by employing the two-arm carrying method, advocated by Lt. Robert McGrath, rather than the over-shoulder method. The McGrath method keeps the patient's face toward the sky and avoids fright that might be induced by facing him toward the ground from great heights. Also, a patient can be handed down more easily to another fireman lower on the ladder.

Milwaukee Journal Photo

**'Fire drills are well and good
— up to a point. That point is:
the moment a serious fire starts!'**

alarm sounded. And what happened? The children piled up around the blocked exit, not knowing where to go next. In a real fire they might have been trapped, trampled and suffocated.

The lieutenant envisioned the fatal results of a sudden violent emergency — an explosion, a pilotless jet or a driverless gasoline truck crashing into the classrooms, a tornado, or even enemy action. In such event the conventional fire drill might be little more than a tragic gesture.

Following any catastrophe real or self-made experts are quick to come up with suggestions about how loss of life or the emergency itself might have been averted. Rarely had the lieutenant heard of disaster procedures being widely discussed or enacted beforehand. As a result, most disaster sites are scenes of leaderless confusion; the tactics are spur-of-the-moment inventions or improvisations.

How different the picture might be if various groups within a community met together before a possible school disaster and decided what to do during the emergency! Basic defensive techniques could be adjusted to any sort of threat if they had been worked out in advance.

Out of the foregoing speculations the Waukesha Project evolved. The opportunity came when Robert M. Jones, administrator of Waukesha Memorial Hospital, invited Lt. McGrath to collaborate on a test of that hospital's disaster plan. Here was a

chance to involve the schools in a staged disaster.

Three planning meetings were set up: one of hospital officials, one of school, city and hospital administrators, and the third for civic and industrial leaders, plus the school and hospital people. In subsequent training sessions, Lt. McGrath instructed volunteer civilian evacuation squads in their specific duties.

Details Kept Secret

The day, the hour, the minute of the mock disaster was a secret. The newspaper editors knew, but they informed the public only of the fact that the project would "take place at a local school sometime this week."

There were to be three practice drills for the children — including one the day before the mock fire, and one the day after. On two days the selected children were brought to school from the local Y.M.C.A. and Y.W.C.A. in buses. Each had the consent of his parents, who had been informed by letter of the general requirements. Neither parents nor children knew the time of the "incident" until two hours before the alert. At that time nursing teams from Waukesha and Milwaukee began applying theatrical makeup to the children's faces and limbs so that their "injuries" could be identified at the hospital.

At 1:09 p.m. on Aug. 20, 1959, Barstow Elementary School looked as quiet and deserted to the passer-by as

did any other school building during the closing days of summer vacation. But 150 children were inside in designated classrooms.

About that moment Principal Kohta became certain he detected smoke. And so he did, for a smoke bomb had just been set off.

At precisely 1:10 p.m. Mr. Kohta pulled the school fire alarm, and immediately thereafter called the fire department.

Having closed the windows, 90 children marched swiftly from their classrooms to three regular exits. But a sudden gust of smoke and flame trapped 60 children in two southwest classrooms on the first and second floors.

Help in One Minute

It was exactly one minute before the first piece of fire apparatus arrived, and the chief radioed a disaster alert. The police picked up the fire chief's alert on its radio call system and passed it along. Police and fire vehicles and private ambulances blew their sirens for 30 seconds to indicate: "Waukesha is on a disaster basis right now." Factory whistles blasted forth. Soon police alerted the hospital that from 60 to 100 casualties would be on the way shortly. In the meantime firemen actually dragged hose lines into each end of the building "to keep the temperature down" as much as possible until rescue work was completed.

The first rescue team arrived in four minutes. And none too soon. Amid

LT. ROBERT McGRATH (white shirt) assists volunteers in carrying "casualties" from smoke-filled school ground. A fire lieutenant (background) administers oxygen to a boy "overcome" by smoke.

Photo by the Milwaukee Sentinel



DELIVERY TRUCKS are used in addition to ambulances to transport children to the hospital. Use of civilian equipment for emergency purposes is in compliance with Lt. McGrath's evacuation plan.

Milwaukee Journal Photo



BANDAGES AND SPLINTS (above) are applied to "fire victims" but no internal medicines are administered. . . . **ACTOR PATIENTS** (right) are removed to the cafeteria for refreshments as a reward for their participation.



'... sound the alarm first; THEN call the fire department!'

clouds of smoke two boys "jumped" from second floor windows before the firemen had arrived; there they lay with compound fractures of the leg or arm and other injuries. Three children plunged into the fire net before the firemen could get their ladders up to the second story windows.

The ladders went up very fast, though, and firemen with masks and asbestos gloves climbed up and into the windows, handing out children one by one to other firemen who scurried down the ladders in a constant flow. The pupils were laid on blankets on the school grounds. All the children were evacuated in 12 minutes flat — from the time the alarm was sounded.

Ambulances, panel trucks, station wagons, and even a big moving van pulled up at the fire scene almost simultaneously with the arrival of trained citizen blanket teams. The drill looked convincingly like the real thing to the 20 men volunteers, who had not been told that smoke bombs were to be used. Theirs was the responsibility of moving the children in the blankets onto stretchers and into the waiting ambulances and other conveyances. The last injured child was en route to the hospital 20 minutes after the fire was reported.

The police, sheriff's men, and civil defense auxiliary police kept the lanes open between school and hospital. They established the necessary road blocks and challenged and excluded unauthorized persons and all vehicles without red flags. This is a job police are trained to do better than any other agency, yet their failure to do this is one of the main stumbling blocks at any disaster scene, Lt. McGrath asserts. Not so in Waukesha!

Treatment Is Swift, Exact

Within half an hour after the alert signal, the 60th and final victim was being "treated" at the hospital. Personnel there had swung into disaster plan procedure upon the first call of the police. In six minutes 40 cots were up, and medical, nursing, engineering and other departments stood ready and waiting for the first victim to arrive.

Two receiving entrances were utilized. Victims were taken to sorting stations where they were tagged and moved into temporary wards. Some children were undressed and in bed before they realized exactly what was happening.

Those with minor or superficial injuries soon were guided into the hospital cafeteria, where later all of the

child actors were rewarded with refreshments. Throughout the exercise the faces of the children reflected the seriousness of the event that was being acted out.

A major lesson learned from this disaster drill was that the success of the program must not depend upon any one person, civil defense head or other. No individual can attempt to tell all the various agencies involved in a disaster what to do, once the disaster is under way. Even if he could do so, it would be an unwise step, since the "general" could be the first person to be injured.

Someone must integrate the entire project by bringing the various agency heads together in advance to discuss who will do what. But once agreement is reached on this point, the head of each agency is the boss, with chain of command prevailing. For example, the police handle traffic; the firemen do rescue work and put out the fire; the volunteers perform the specific job they have been trained to do.

Communication Is Essential

The important consideration is communication, so that each group will know what it is expected to do and the other groups will know what each

unit can be expected to do. Thus duplication, conflict and confusion are avoided.

Waukesha's project demonstrated the need for teamwork between schools and community. Heretofore, school fire drills had been held independent of other agencies. The school administration now is firmly resolved to maintain close liaison, particularly with the fire and police departments.

Do's and Don'ts

Principal Kohta reports that members of the Waukesha school system learned a great deal about fire safety from the disaster drill. "It was a lot of work," he says, "but it was well worth it." Mr. Kohta encourages other administrators to try the "actual incident" type of fire evacuation, even though they believe they now have a good fire protection system.

For those who want to use the mock fire technic in their own communities, there are these suggestions:

1. Begin planning well in advance, as there are many facets to be dealt with. Success depends upon having anticipated every possible situation. Teachers, especially, must be thoroughly prepared and convinced of the merits of the project.

2. Get the cooperation of every agency in the community. As Lt. McGrath states: "If and when disaster does strike, the school will not long remain an island of self-determination. All sorts of people will respond. There will be policemen, firemen, citizens, doctors, nurses and Red Cross representatives. There will be stretcher carriers, ambulance men, and truck drivers. Hospitals must be alerted. Lines of authority must be established, problems of communication and transportation worked out in advance."

3. See that school participation in the exercise is in the minutes of the board of education. There always is the possibility that some real injury might result during the drill.

4. Get the written permission of the parents of the children to take part. Make parents participants, rather than spectators. P.T.A. organizations particularly can be helpful.

5. Screen the children planning to take part. Check school records for earlier illnesses that might recur during the height of excitement. Don't accept children with heart conditions and others who may not prove equal

to the physical demands made upon them.

6. Investigate the possibility of need for a special blanket type of insurance to cover the event.

7. Avoid using an older school building as the locale of evacuation exercises. In the glare of publicity the project will receive, self-appointed critics may raise questions as to the school's ability to stand up under actual fire, even though it meets local code requirements.

8. Rehearse all evacuation procedures as often as possible before the event. The better rehearsed the children and teachers are, the less danger of a panic under the illusion of an actual conflagration.

9. Win the cooperation of local and area newspapers. The good school public relations so engendered will extend beyond the particular fire safety project.

Drill Is Successful

As to the disaster drill which he planned and directed at Waukesha, Lt. McGrath has this to report:

"Without going into a step-by-step evaluation, I am satisfied with all the connecting links in the whole chain. Almost every idea utilized proved more than satisfactory — in fact, far better than could be estimated for a first school-community-hospital disaster project. Almost 500 people, including the 150 children, now have a better idea of what can be expected of them if a real disaster should occur.

"School safety is a community responsibility, not solely that of the board of education, superintendent, principal and teachers. Children are everybody's wards. While dollars may provide a large measure of protection for them, no amount of money will ensure foolproof security. Some of the latter is more likely to come from realistic disaster training, with teacher and pupil working with the people that they are most likely to meet if disaster does strike."

Eliminate human Element

Principal Kohta summarized his views as follows: "We in Waukesha hope by our prearranged plan and our practice of that plan to eliminate *human failure* in time of an emergency, thereby making our schools as safe for our children as they can possibly be." ■

PLEASED WITH the results of the mock fire, Lt. Robert McGrath relaxes over a cup of coffee. For 22 years he fought fires in Chicago's worst slums. When promoted to lieutenant five years ago, his job became one of preventing fires rather than fighting them; his title became "hospital inspector." His job turned out to be an impassioned crusade to make hospitals safer for patients and personnel. This is the first time his fire safety methods have been used in schools.



Milwaukee Journal Photo



BEFORE the test fire of an abandoned Los Angeles school, numbers were attached to hallway walls in order to chart the progress of smoke.



AFTER the fire, it was evident that hallways turned into smoke-filled death traps before automatic closing fire doors and self-opening draft vents went into operation.

GEORGE REASONS

Education Editor, Mirror-News
Los Angeles

Photos by Los Angeles Fire Department

FOUR months after the school fire in Chicago, the Los Angeles fire department set about finding the answers to school fire safety in the most direct way possible. In a carefully controlled experiment, firemen burned down a three-story school (The NATION'S SCHOOLS, June 1959), almost an exact replica of Our Lady of the Angels.

The Ford Foundation's Educational Facilities Laboratories underwrote the \$25,000 project. The Los Angeles school system furnished the building, a condemned junior high school.

The 75 fires set were designed to test the effectiveness of automatic vents, curtain boards (draft or fire curtains), and automatic sprinklers individually and in combination. Also tested were automatic fire and smoke detection equipment, fusible links, automatic door closers, fire resistant paints, and materials.

A total of 1200 man days were spent. The building was left a charred wreck, but not before it yielded a wealth of life saving facts.

The fire department released the results in a 264 page report prepared by the National Fire Protection Association. These results were almost completely negative.

Theories held for decades by the nation's top fire experts were discredited. Virtually all fire safety devices, except automatic sprinklers, flunked under test conditions.

Discouraging though it sounds, results of the fire experiment demonstrated clearly what not to do in attempts to achieve classroom safety. The report revealed that children's lives are snuffed out by smoke, not flames, in almost all school fires.

School hallways turn into smoke-filled death traps long before automatic

SMOKE IS THE KILLER!

WHAT THE TESTS REVEALED

1. **Untenable smoke conditions** preceded untenable temperature conditions in nearly every test! With the test fires used in tests and no fuels added to the fire because of the construction of the building, smoke (specifically as it pertains to visibility and irritant effects) was the principal life safety hazard.

2. **Natural draft vents** of the sizes tested in this investigation, and installed and opened as described in each test, did not keep corridors and stairways tenable for exit use.

3. The addition of **curtain boards** with vents did not significantly aid in decreasing smoke spread through the building and, in fact, had an adverse effect on the action of the vents in some tests.

4. **Forced draft** up to the capacity tested failed to produce any more satisfactory venting action.

5. **A complete system of automatic sprinklers** will maintain low temperatures throughout the building and will prevent extensive build-up of smoke and irritating gases.

6. **Partial automatic sprinklers** (sprinklers installed in exitways but not in the fire area) did not prevent smoke spread throughout the building even when installed to provide a water curtain between the test fire and the corridors.

7. **Vents and partial automatic sprinklers** (sprinklers installed in exitways but not in the fire area) was not an effective combination.

8. **Combinations** of vents, curtain boards, and partial automatic

sprinklers (sprinklers installed in exitways but not in the fire area) did not prove to be satisfactory.

9. **Untenable smoke conditions** existed in the building before the operation of fusible link actuated devices.

10. **Enclosed stairways** will not provide protection against heat and smoke unless the doors are closed or are closed immediately after an outbreak of fire.

11. **Automatic heat detection devices** detected the presence of fire at about the same time that untenable smoke conditions were reached within the building.

12. **Automatic smoke detection devices** detected the presence of fire before untenable smoke conditions were reached, but not in sufficient time to allow complete evacuation of the test building.

13. **Opening a hole** to provide a vertical flue in the stairways did not significantly change any of the results.

14. **Cellulose fiber acoustical tile** (classified Class C and commonly known as "slow burning" under U. S. Federal Specification SS-A-118b) resulted in rapid fire spread when ignited. This constituted a distinct hazard in that it was the means by which fire could be readily transmitted throughout the building endangering all portions and persons therein. The rapid flame spread characteristic of the tile can be reduced with the application of a fire retardant paint (Underwriters' Laboratories, listed).

closing fire doors and self-opening draft vents can go into action.

Curtain boards designed to stop smoke spread, automatic heat detection devices, holes over stairways, even enclosed stairways, all failed to live up to their life saving reputations.

"It takes from 2 to 7 minutes for conditions in a school to become untenable," Fire Marshal Raymond Hill declared.

"In the tests we conducted, not one vent or automatic closing device worked swiftly enough to prevent spread of deadly carbon monoxide and other fumes," he commented.

Automatic vents helped only in the reduction of property damage. So, also, did the automatic closing firebreak doors in hallways. They had little if any effect on life safety.

Fire resistant doors and paints also failed to uphold hopes of the experts. Slow burning acoustical tile was found

a hazard because it actually spread fire through the corridors.

Automatic closing transoms, designed to protect classrooms from fire heat, failed time after time to close before temperatures inside rooms reached the untenable point of 150 F.

One measure suggested since the Chicago fire was installation of partial sprinkling systems at probable hot spots such as chemistry labs and furnace rooms. Tests proved this ineffective.

A partial system allows most of a building's occupants to reach hallways safely, said Mr. Hill. But it takes only 5 to 10 minutes for 1000 carbon monoxide parts per million to collect in the atmosphere during a fire, he added.

With partial sprinklers, victims would get lost in the smoke and die unless firemen reached them immediately.

For years firemen have believed hazards of school fires were greatest on cold

days, when doors and windows were shut. "We found untenable conditions were reached more quickly under hot day conditions, with wide open windows providing oxygen to feed the fires," Mr. Hill said.

Conditions are considered untenable when a victim cannot see more than 2 feet and when breathing is shut off by tears and coughing.

The tests showed children have much less time than thought previously to evacuate a building before it becomes a funeral pyre.

A typical test fire set on the first floor produced untenable conditions on that floor because of smoke within 3 minutes. Fumes and visibility reached the danger level in 4 minutes on the second floor and in less than 6 minutes on the third floor.

Heat became unbearable in 5 to 7 minutes on the ground floor and within 8 to 11 minutes on the second and third floors.

In every test, Mr. Hill said, untenable conditions were reached much more quickly than anyone had anticipated.

The only device that showed promise of all-around protection was the complete automatic sprinkler system with built-in heat triggered alarms.

"Such a system, with its immediate heat reducing and fire fighting ability, plus alarms to alert the fire department and occupants of the building, appears the only answer to the dilemma," Mr. Hill contended.

The tests showed complete sprinkler systems maintain low temperatures throughout the building and prevent excessive smoke build-up.

Furthermore, added Mr. Hill, "no additional construction to correct open stairwells or faulty transoms or doors would be needed if sprinklers were properly installed."

"An untold number of lives and millions of dollars that might have been wasted on inadequate protective construction will be saved by the tests," the fire marshal said upon release of the project report.

Sprinkler Systems Not Costly

Installation of sprinkler systems is a relatively inexpensive method of securing fire protection, Mr. Hill believes. "Complete systems could be installed in Los Angeles for about \$6000 a school," he said.

Already the Los Angeles city school system is installing such systems in its remaining 39 three-story schools. As soon as this is completed the systems will be installed in all two-story schools.

Schuyler Joiner, the business manager for the city school system, stated that cost of sprinkler installation will be par-

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FALLOUT PROTECTION

A PLAN FOR SCHOOL SHELTERS

A report that could have vast consequence in school planning throughout the nation is "School/Shelter: An Approach to Fallout Protection." Sponsored by the Executive Office of the President, Office of Civil and Defense Mobilization, it is based on a federally financed research and development program conducted by Eberle M. Smith Associates, Inc., architects and engineers, Detroit. Collaborating in the study as educational consultants were Engelhardt, Engelhardt, Leggett, and Cornell of New York City. This article is a synopsis of that school shelter story with introduction by Wallace B. Cleland of the Smith firm, followed by adaptations from the report.

THE DEVASTATION of nuclear warfare has seemed so incomprehensible that it has been repeatedly equated to "mutual destruction" and "the end of the world." This, coupled with the rather mysterious and consequently terrifying characteristics of radioactive fallout, has resulted in the kind of mental block that says, "War is unthinkable!" To a considerable degree, America has in a score of years done a complete switch from isolationism (a bland assumption of security) to defeatism (a blind acceptance of insecurity).

The hard fact is that war is neither unthinkable nor impossible. No one seriously doubts that a next major war would be atomic and that it would result in unparalleled destruction, but no authority now visualizes it as totally catastrophic. There are limiting factors in atomic war, as there always have been in war. A particularly significant limitation is that the radioactive fallout that imperils one nation can be carried by globe encircling winds to threaten, to a lesser degree, the attacking nation.

War is fought with the knowledge that men will be killed; in modern war this would include great numbers of the civilian population. The House Military Affairs Subcommittee Defense Report estimated that an H-bomb attack on our 150 largest cities could wipe out 160 million people, about 90 per cent of our population. It also estimated that a complete shelter program (including protection from heat and blast, as well as fallout) could reduce the death toll to 3 per cent. In an attack on the United States at the present time, it has been approximated that three out of four deaths would be due to fallout. It is pointed out that a strong civilian population is an indispensable component to defensive strength.

(Cont. on p. 64)

While there are differences of opinion regarding technics and costs, there is a remarkable consistency of opinion about the need for a shelter program among those people who really have studied the problem and have made the effort to become informed. Within the last two years, several major independent research committees have surveyed the situation and turned in reports advocating broad national shelter programs. These include the Gaither, Rand, and Rockefeller Brothers Reports. Within recent weeks, Gov. Nelson Rockefeller of New York announced his support of a New York State defense committee report advocating that shelters from radio active fallout be made a mandatory part of all new construction, and that they be installed where possible in all existing buildings at a "specified future date." Thus Governor Rockefeller became the first major elected official to espouse a compulsory shelter program to be financed from public funds.

Despite authoritative recommendations, why is there such great reluctance from the public and their elected officials to face the issues? Probably many people react the way one school superintendent did when he was asked to be of help on the research project here presented. He grimaced and said, "I don't even want to think about it!"

Aside from public disinterest, a principal obstacle has been the presumption that civilian defense is largely an individual or, at least, a state's rights matter. Curiously, this patterning of delegated responsibility has never been advocated extensively in planning national military defense preparedness.

THE COST FACTOR

In any plan to establish a national shelter program, the cost factor has seemed a major deterrent. Estimated costs have varied widely with the degree of protection proposed, but two of the major studies have suggested from \$20 billion to \$24 billion for a complete fallout shelter program. Added protection from heat and blast (needed only in the vicinity of target centers) has been estimated to cost perhaps twice that amount.

The consensus of the experts has been that fallout protection is the most urgent need and is the "best buy" in regard to total national security. Certainly, these cost figures are breathtaking, but some authorities point out that the sums are not quite so numbing when compared with our current rate of expenditure of more than \$40 billion annually for a military defense that is largely retaliatory.

In dealing with such astronomical sums, it is helpful to break them down to more comprehensible amounts. Usually, this is done on a per shelter occupant basis. The shelter program recently advocated in New York has been estimated to cost from \$25 to \$250 per occupant. The wide variance is due largely to whether existing basement space is initially available. The shelter costs proposed in the research here presented are for new buildings or additions and begin at \$50 per occupant beyond normal expenditures and range upward, depending primarily on the characteristics of the building type.

One of the bright spots in the scene is the possibility of providing dual-use structures, which consist of normal-use space needed for daily activities that could be converted to shelter use in an emergency. Toward this end, studies have been made of a number of building types, of which schools have seemed to hold particular promise.

— Wallace B. Cleland

Abridged From SCHOOL SHELTER:

School buildings lend themselves to advantageous use as fallout shelters. Here are some of the reasons:

1. Students in elementary, junior high, and high schools comprise approximately one-fifth of the population of the United States. Continued well-being of these youngsters is of absolute importance to our country's future.
2. Schools are distributed geographically in relationship to concentration of

population. Elementary schools, especially, are closely related to residential population.

3. The school is a permanently established organization with responsible leaders and orderly procedures.

4. Often the school building is the most substantial and best equipped facility in the community.

5. Except for housing, schools are currently the most prevalent building type in the United States. Thus, shelters in schools provide excellent opportunity for protection of large numbers of people.

In virtually all school planning, economy is a foremost consideration. Generally, this rules out the provision of separated shelter facilities used only in emergencies. Thus, it is important that all sheltered space be available and useful for daily educational purposes. How this can be accomplished in both new schools and additions has been the subject of four case study school designs.

CASE STUDY SCHOOLS

The attempt to combine the ideal school and the ideal shelter creates a number of problems, of which the most conspicuous is that presented by the necessity of surrounding educational spaces with adequate shielding for radiation protection. Obviously, this conflicts with current educational and architectural thinking directed toward achieving teaching spaces of maximum openness and natural light.

Planners believe, however, that enclosed instructional spaces can be made attractive and comfortable, and, in fact, have certain advantages over conventional construction. Among these advantages are better temperature and humidity control, which facilitates the use of air conditioning, and better illumination control, which improves the quality of classroom lighting and simplifies the use of AV-TV teaching techniques.

The sheltered areas indicated in the case study schools are limited to classrooms or multipurpose rooms in order to make their facilities as typical as possible. These two types of spaces constitute 75 per cent or more of the area of the typical elementary school, and are the only teaching facilities standard to all elementary schools in all parts of the country.

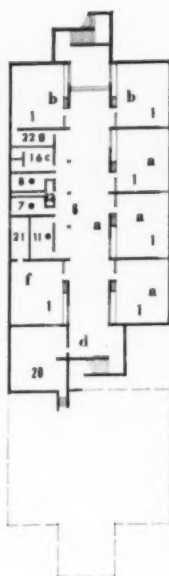
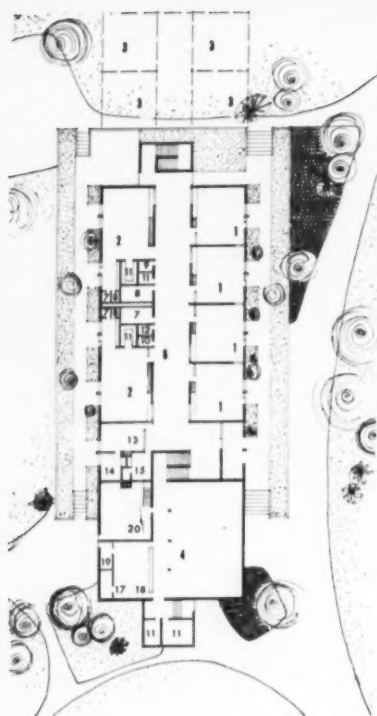
Junior high schools and high schools, by the nature of their class scheduling and variety of spaces, are a less critical problem in enclosing instructional areas. Lack of natural light and view is less important in rooms occupied for a single class period than in rooms occupied throughout the day. Thus, it is believed that elementary schools constitute the more difficult problems in school shelter design and for that reason exclusive attention has been given to them in these case study schools. Most aspects of this report, however, could pertain to schools for the upper grades.

The case study schools here presented have 12 or 16 classrooms, depending upon the building type. The designs are not conclusive, and other arrangements might be more suitable for particular conditions of climate, topography or educational program.

In general, the shelter areas are planned to accommodate the entire school population of pupils (assumed to be 30 per classroom), but in all instances the shelters could be modified to accommodate somewhat larger numbers, depending on the degree of crowding believed necessary. The typical elementary school provides a gross average of 45 to 55 square feet per child, which is four to five times the space allotment considered the minimum acceptable for shelter.

Thus, it is apparent that shelter space would present a distinctly new environmental experience for the school child. Under confined conditions, it would be necessary not only to protect the occupants from radiation hazards but to provide for essential physiological and psychological needs. Some of these special problems will now be discussed.

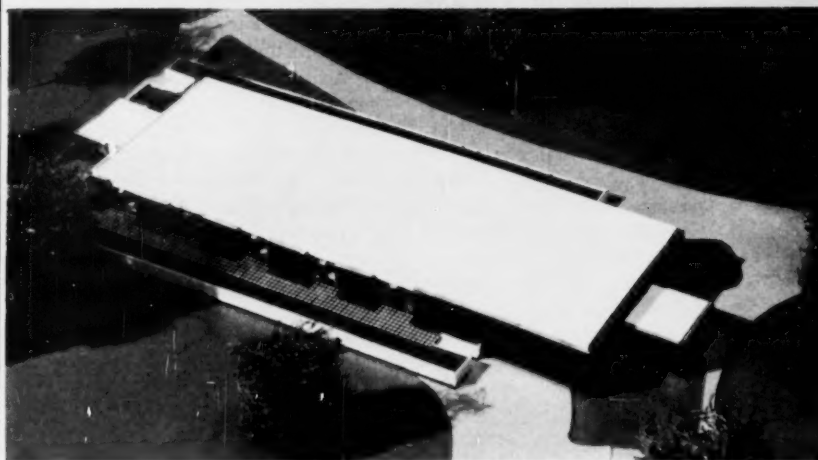
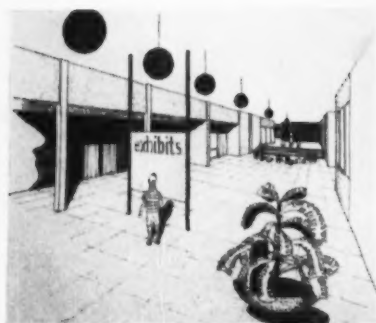
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PLANNED INITIALLY for 12 classrooms and a multipurpose room, this school is to be expanded by a four-classroom addition; hence, its shelter space is designed to accommodate its eventual 500 occupants. This space is provided by six basement classrooms grouped around a general activity corridor, the total providing a net area of 14.7 square feet per person during an emergency period. An advantage of basement shelter is the inexpensive protection afforded by earth surround. The need for general activity spaces, coupled with the desirability of providing visual extension for classrooms that are away from natural light, has been met by the widening of corridors to 20 feet in the case study school. Such a space not only is useful educationally, but, enhanced by exhibits, planting and furniture groupings, can be pleasant and decorative as well.

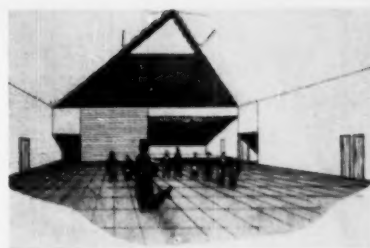
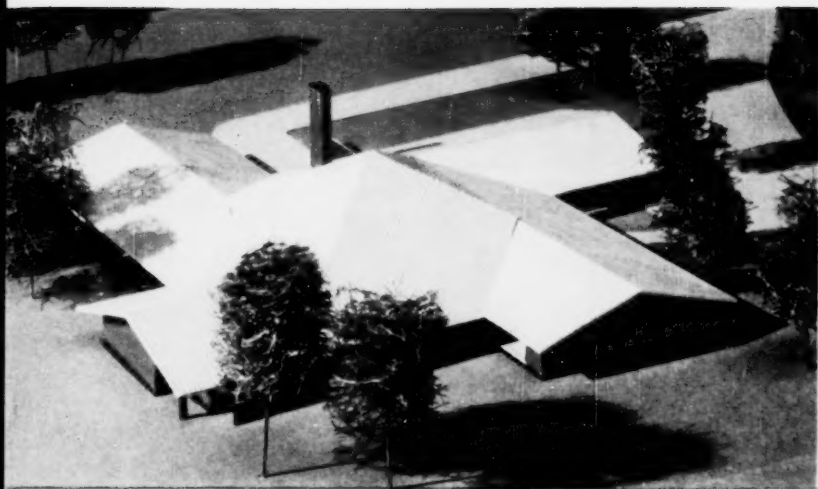
NEW SCHOOL (BASEMENT SHELTER)

CASE 1 STUDY



Key to Floor Plans

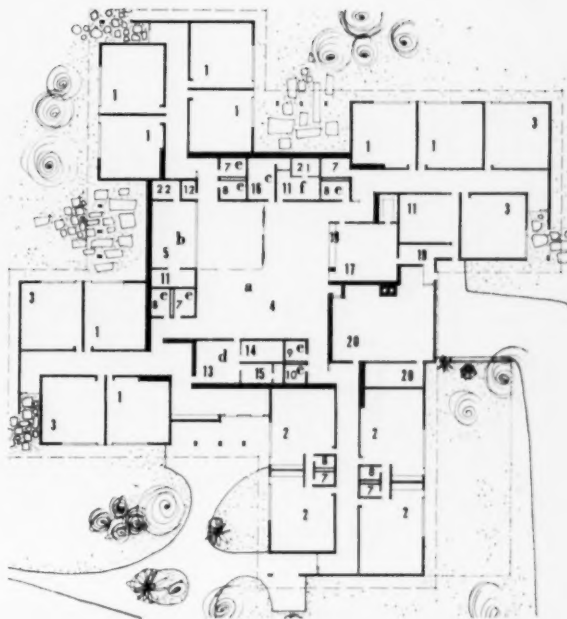
NORMAL USE: (1) classroom, (2) primary classroom, (3) future classroom, (4) multipurpose room, (5) platform, (6) general activity, (7) boys, (8) girls, (9) men, (10) women, (11) storage, (12) janitors' storage, (13) general office, (14) principal's office, (15) clinic, (16) teachers' room, (17) kitchen, (18) food service, (19) receiving, (20) mechanical equipment, (21) food storage, (22) cot storage. **SHELTER USE:** (a) general activity, (b) sleeping, (c) infirmary, (d) administration, (e) toilets, (f) food service, (g) waste disposal.

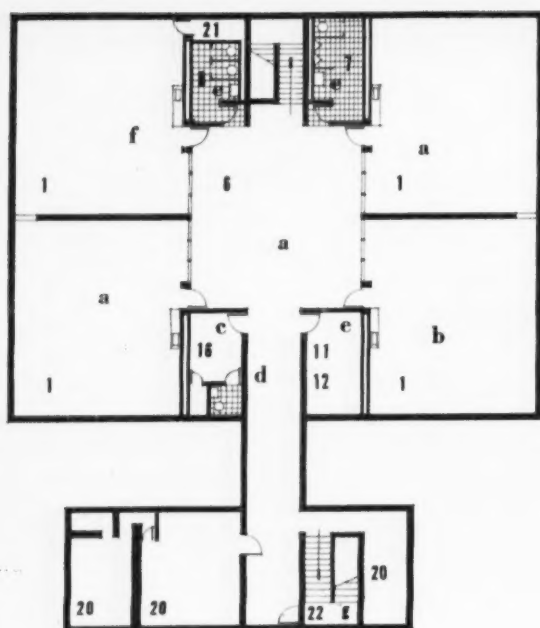


CASE 2 STUDY

NEW SCHOOL (GROUND LEVEL SHELTER)

EMPHASIS WAS GIVEN in this plan toward making long occupancy spaces as pleasant as possible, because the elementary school child spends almost his entire day in a classroom. All are provided with natural light, view and direct access to the outdoors. The sheltered portions of the building are confined to the multipurpose room and certain auxiliary, administrative and circulation spaces that are grouped at the center of the plan, easily accessible from each of the four classroom clusters. A school shelter of one-story design would have a number of the standard educational advantages of such construction. In addition, there would be, in certain localities, advantages to building without basements, thus alleviating foundation problems. The initial size (12 classrooms plus multipurpose room) and expected addition (four classrooms) assumed for this school make it identical in population requirements (500 occupants) to Case Study School No. 1. The net area per shelter occupant is 10.2 square feet.

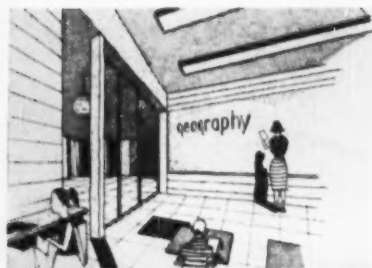




THIS SHELTER TYPE, proposed as an addition to an eight-classroom school, would accommodate 375 occupants with a net area allowance of 12.9 square feet per person during an emergency period. Its underground location accomplishes its needed radiation protection in simple and inexpensive fashion. The interior space could be made pleasant by use of light, color and spatial interest. The focus of interest is in the general activity area, which would serve for projects, exhibits and indoor play as well as giving visual extension to the classroom. Because the architectural characteristics of existing schools vary widely, this new building is designed with sufficient flexibility to adapt to either a tunnel or above ground connection. Using a split-shift schedule during an emergency, it would be possible to provide sleeping space for half the occupants in one classroom. A second classroom would serve for food preparation and serving, while the other spaces would function for general activities.

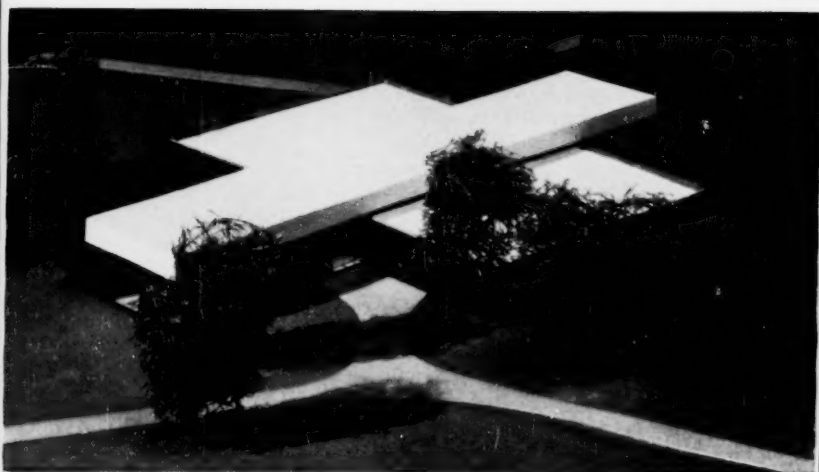
FOUR CLASSROOM ADDITION TO EXISTING SCHOOL (Underground Shelter)

CASE 3 STUDY



Key to Floor Plans

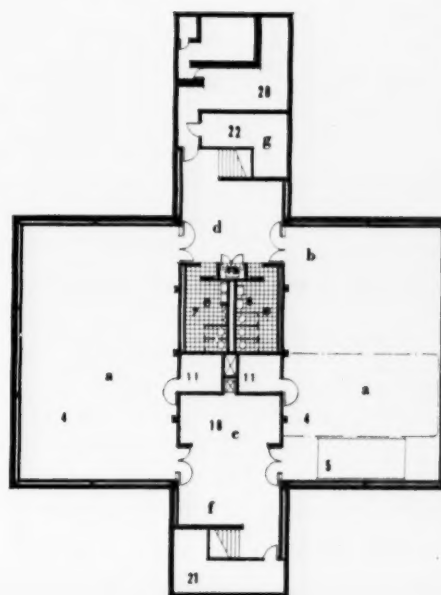
NORMAL USE: (1) classroom, (2) primary classroom, (3) future classroom, (4) multipurpose room, (5) platform, (6) general activity, (7) boys, (8) girls, (9) men, (10) women, (11) storage, (12) janitors' storage, (13) general office, (14) principal's office, (15) clinic, (16) teachers' room, (17) kitchen, (18) food service, (19) receiving, (20) mechanical equipment, (21) food storage, (22) cot storage. **SHELTER USE:** (a) general activity, (b) sleeping, (c) infirmary, (d) administration, (e) toilets, (f) food service, (g) waste disposal.



CASE 4 STUDY

MULTI-USE ADDITION TO EXISTING SCHOOL (Partially Underground Shelter)

THIS UNIT is to round out the facilities of an existing elementary school presumed to contain 12 classrooms. A shelter population of 375 persons would be provided with a net area of 12.3 square feet for each occupant. The greatly diversified activities of the present-day elementary school have led to increased use of multi-purpose facilities. In fact, it was found that the multipurpose room is often the most overworked space in the school. Frequently the requirements of the hot lunch program make this space unavailable for educational purposes for several hours at midday. Indoor play space is particularly in demand in inclement weather, and the advent of AV-TV teaching techniques has made assembly rooms of increased importance. It was concluded that two multi-use rooms (one for dining; one for active games) would be most useful during normal operations. These two rooms, which are divided by a two-level service core, also adapt easily to the split-shift schedule of emergency operation.



PROTECTION CONSIDERATIONS

The myriad particles carried aloft by a nuclear explosion will drift with the wind and slowly descend, perhaps hundreds of miles from their origin. These particles, dangerous until their radioactivity decays, require radiological instruments to determine their degree of danger, for often they are invisible and cannot otherwise be detected. A brief exposure to them may cause serious illness. An extended exposure could cause death.

At a time of enemy attack, principal target areas such as our major cities face added jeopardy from blast and heat, but even within the scope of nuclear warfare, total destruction is a risk to relatively limited areas. More extensive is the peril of fallout, a danger that varies with the size and type of nuclear explosion and its relation to the surface of the earth, as well as the speed and direction of the wind. Even the remotest communities of the United States cannot be considered free from the hazards of lethal fallout.

To gain protection there are three principal methods: evacuation, decontamination and shelter. Each technic has useful aspects and each has its place in a balanced program, but authorities have come to place special emphasis on fallout shelters as the means of providing the greatest protection for the greatest number of citizens. Planning for such shelters in conjunction with new school construction is the subject of special emphasis in this report.

A warning period that could help citizens to reach shelter safely is provided by the fact that, after a nuclear explosion, fallout is carried by the winds and descends slowly to earth. Governmental agencies, utilizing radiological monitoring and weather forecasts, would be able to alert the public to impending danger. At such a time, life depends on knowing where to go, what to do, and what constitutes adequate shelter.

Careful studies have revealed that a large proportion of our population could be virtually assured of survival if adequate shelter were available. This generally is estimated to require a protection factor of 1000, which means that inside such a shelter a person would receive only 1/1000 of the amount of radiation he would absorb were he outside. Major protection is achieved by the interposing of a material thickness considerably in excess of normal building construction between the sheltered spaces and the surrounding unprotected areas. Such construction is the best insurance against the risk of fallout.

Protection of children always has been a duty of the teaching profession that parallels educational responsibilities. Who can number the thousands of children saved by the following of such protection programs as fire drills, safety patrol, and first aid? In an era faced with the continuing threat of nuclear attack, every school child should be taught the simple rule, "Take Cover!" However, unless shelter is close at hand, the warning is inadequate.

A fundamental precept of the school shelter idea is that regular day-to-day life within such a facility would be as school days ought to be everywhere — busy, pleasant and productive. It is impossible to disregard, however, the awful danger these structures were meant to circumvent. What might it be like on the bewildering day when the sirens scream and well drilled routine propels pupils and teachers to shelter? What might happen when the sound of the sirens dies away and the prospect of two weeks of confinement and isolation is there to face?

No one knows all the answers, but it is apparent that the prospect demands thought, planning and preparation. When disaster strikes, survival depends both on what facilities are immediately at hand and what individuals are trained and ready to do.

It is probable that adequate warning will permit persons to enter the shelter unharmed by fallout. Thus, the focus of thought and planning should be on maintaining good health, both physical and mental. Not only must a school shelter facility be immediately convertible to shelter use, but also it should be operable and habitable as a completely independent entity for a period of approximately two weeks.

At a time of dire national emergency requiring shelter occupancy, it may be assumed that such ordinary services as telephones, water supply, sewage disposal, fuel supply, and food services would not be functioning. Further, it

may be assumed that it would be inadvisable for anyone to leave the shelter for any reason during the emergency period. Under these circumstances, special consideration will need to be given not only to radiation shielding, but to provision of nourishing food, pure water, fresh air, sufficient space, power supply, rest and sleep, disease control, morale activities, and administrative organization.

While space allotments as small as 6 square feet per person have been used for short-term occupancy of bomb shelters, a large group should not be subjected to an extended period of such confinement. The Office of Civil Defense Mobilization believes that, for the periods of shelter occupancy assumed to be possible, a space of 10 square feet net area per person is the minimum acceptable.

Each of the case study schools exceeds this minimum net space allotment, which suggests that flexibility exists to permit the possible accommodation of some parents, neighbors and preschool children. The contemporary trend toward flexible teaching space happens to simplify adaptation of elementary schools for shelter purposes.

At the beginning of an emergency period, it is assumed that teaching spaces would be emptied of unnecessary furniture. A possible exception would be the food serving area, where portable classroom desks would be retained. A classroom of normal size and shape will, with appropriate changes of equipment, provide sleeping space for up to 180 persons, eating space for 90 persons, and general activity space for 60 persons. A multipurpose room could be partitioned to provide equivalent spaces.

Determination of the degree of radiation protection provided by shelter construction involves complex computations and is a job for architects and engineers in cooperation with radiation consultants. In general, however, protection is accomplished through increasing the mass or material thickness of walls and ceiling construction.

Radiation intensity is substantially reduced as it changes direction. For example, stairs and hallways with at least two right angle turns will markedly reduce the danger from open entranceways. Some use can be made of temporary barriers to increase the safety of improvised shelters, but it is inconceivable that, within the anticipated warning period, an entire school population could be completely protected by hastily erected materials.

It would not be possible to continue meal service in normal patterns during shelter occupancy. Regular food supplies would be unavailable and the kitchens would, in most cases, not be operable. Rather, nourishment would be furnished by prepacked food rations, storage for which would require approximately 2 cubic feet per person, assuming a two-week occupancy.

It is believed desirable psychologically that school age children be kept on a normal schedule of three meals a day and that a semblance of familiarity in foods be retained through use of cooled reconstituted milk.

Because of the possibility of radiological contamination of water and the interruption of utilities in an emergency situation, it is essential that a reliable source of water be planned. Survival of shelter occupants probably would be possible with as little as 1 gallon of drinking water per person per day, but 2 gallons would be a more tolerable provision.

Keeping the proposed quantity of water fresh and uncontaminated would

SPACE

SHIELDING

FOOD

WATER

require special storage arrangements. A well should be developed on the school shelter site since well water is the least vulnerable to contamination by fallout. In situations where wells cannot be developed, surface sources, although subject to contamination, can be used for such purposes as sanitation, air cooling, and the cooling of the engine-generator.

ELECTRIC POWER

A careful analysis of the normal utility systems serving the school area may reveal a low degree of reliability during nuclear attack. If so, an emergency power source for shelter occupancy would be required to meet the needs of air circulation, pumping of water and coolants, disposal of sewage, and the operation of communication and low-level illumination facilities.

A stand-by engine-generator with stored fuel for two weeks may be necessary, its size appropriate to the number of occupants, climate and the standard of comfort. Special emphasis must be placed on reliability of equipment, and it may be desirable to have two generators, each sized for one-half capacity and circuited so that only those functions absolutely necessary to survival (air circulation and water pumping) could be continued if one generator fails.

SLEEP

Although the shelter occupants can sleep on the floor if provided with blankets or sleeping bags, the use of triple-tier bunks will permit sleeping facilities for up to 180 persons in a single classroom. Following a 12 hour split-shift schedule, one room could thus provide accommodations for 360 persons a day. Bunks or other devices would need to be stored within the shelter area and be of a type that could be set up by an unskilled staff.

VENTILATION

Ventilation must be planned to provide suitable air purity, temperature and humidity. In order that suitable oxygen and carbon dioxide limits be maintained, the air circulation should provide a minimum of 3 cubic feet of fresh air per minute per person through the use of standard commercial filters. Activated carbon purifiers will remove odors from recirculated air.

One of the most vital aspects of establishing a habitable environment under the crowded and confined shelter conditions is that of temperature. If practicable, the dry bulb temperature should be maintained between a minimum of 67 F. and a maximum of 85 F. If the humidity in the shelter is high, it is essential for the health of the occupant that the dry bulb temperature be maintained well below 85 F. Even in cold climates, air cooling probably will be necessary under the congested conditions of the shelter.

SANITATION

It is imperative that rubbish and human wastes be disposed of properly. During an emergency period, when utilities may not be functioning and ordinary disposal methods are impossible, sanitation presents difficult problems. In most shelters, the population would be so much greater than normal that the ordinary number of toilet fixtures would be inadequate. Even if a water supply is available, it is probable that additional temporary toilets would be needed. The number recommended is one for each group of 35 shelter occupants.

Although various types of portable chemical toilets are available, the simplest equipment is the plastic container that can be emptied into a sewage-ejector wet well, wastes thereby being expelled outside the shelter. Such a device could also serve for disposal of shredded garbage. Paper, rubbish, cans and so forth and would be stored within the shelter for the duration of the occupancy.

The primary requirement of a shelter facility is the maintenance of the good health of the occupants, a vital aspect of which is the control of disease. In part, such control is accomplished by sanitation and ventilation, but it also entails first aid and isolation of communicable disease.

DISEASE CONTROL

For emergency use as the shelter infirmary, it would be necessary to convert a space with its own toilet facilities. It is expected that within a two-week period approximately 5 per cent of the occupants would require isolation and/or continued bed rest, which suggests an infirmary capacity of approximately 2 per cent of the occupancy. Because of limitations both of staff and physical plant, it is assumed that serious cases of physical or mental illness would receive little care that is diagnostic or therapeutic; rather, it would be merely supportive.

A training program of preparation for shelter occupancy would drill school children in protection technics and teach them to comprehend a disaster situation. Thus, it is anticipated that most persons entering fallout shelters would not have suffered prior psychic trauma. Most emotional problems would be caused by the confinement, overcrowding, rationing of food and water, monotony and possible separation from families.

MORALE

Children are emotionally resilient, and most will prove adaptable. It is estimated, however, that from 4 to 8 per cent may suffer major emotional upsets — aggravations, for the most part, of normal instabilities. Such reactions can have a communicable effect, and special provision should be made for isolation and care of these individuals.

Less strong disturbance among a large number of children may take the form of irritability or acts of aggression. There are advantages in retaining, where possible, the existing school pattern of group relationships and activities. This suggests the desirability of several separated groups within a single shelter.

Probably the best morale activity during a two-week shelter occupancy would be a normal educational system, but such a program would be impossible to maintain. Even using a double shift, with half the occupants sleeping while half are awake, the typical sheltered classrooms probably would be filled to more than double normal occupancy. This crowding, coupled with the day-long schedule of shelter confinement, implies extraordinary demands on teacher capabilities, and suggests increased use of large group activities.

An important part of a shelter program would be recreation, active and passive. Children of elementary school age have an essential urge to move about. An unobstructed space should be provided where groups of children can, for short periods of time, participate in active play. Similarly, passive recreation equipment must be provided to make a two-week confinement endurable.

An important advantage of the school as a shelter is its existing administrative setup, many aspects of which could be adapted to shelter operation. It is assumed that, in most cases, the school principal or his delegate would serve as shelter manager.

ADMINISTRATION

For his role, the manager needs some prior training, and his planning should be done cooperatively with state and municipal civil defense officials. He will need to establish a daily schedule of activities, and then assume or assign his adult staff responsibility for such needs as: (1) radiological monitoring, (2) communications, (3) feeding, (4) sleeping, (5) sanitary services, (6) disease control, (7) maintenance of utilities, and (8) morale.

A space will be required from which to direct these operational assignments, a telephone and radio receiver for communications and an area for radiological monitoring. For control purposes, it is desirable that there be some compartmentation of shelter areas, but staff members never should be completely isolated. At the time of such a major crisis, there would be strong need of mutual staff support.

For schools desiring more information, O.C.D.M. offers a technical manual, construction drawings, and detailed costs estimates from this study. ■

MORE THAN 2200 persons registered for the five-day school business officials convention in Miami. Former President Robert W. Shafer (smoking a pipe) is seated in left foreground.



HONORARY LIFE MEMBERSHIP is presented to Ed. P. Williams (center), 1952 A.S.-B.O. president, who receives congratulations from President Percy M. Muir. Seated is Vice President Herschel S. Brannen.



DR. JOE HALL, superintendent of the Dade County school system, welcomes business officials to south Florida, the land of the palms, "royal, coconut and outstretched."

NEWLY ELECTED A.S.-B.O. director is Herman C. Bleckschmidt, assistant superintendent of Normandy School District in suburban St. Louis.



NINE PAST PRESIDENTS were guests at the directors' luncheon.

STANDING: (l. to r.) Frederick W. Hill, director; Everett Zabriskie, director; C. W. Foster, executive secretary-treasurer; Gray N. Taylor, director; John W. Lewis (1940); Percy M. Muir, president; Herschel S. Brannen, vice president; J. Harold Husband, executive committeeman (1958); Schuyler C. Joyner (1954); Joseph P. McElligott, director.

SEATED: (l. to r.) Frank J. Hochstuhel Jr. (1955); Robert W. Shafer (1947); Francis R. Scherer (1950); Sam S. Dickey (1953); Ed. P. Williams (1952); G. Alvin Wilson, president-elect; Andrew C. Hutson Jr. (1957).

A.S.B.O. convention 'got down to cases and provided real inspiration' for school business officials professing belief that competent

Business Management Improves Education

MIAMI BEACH. — Possibly the most plush of its 45 annual meetings, the 1959 convention of the Association of School Business Officials of the United States and Canada saw approximately 2500 delegates and guests housed in the palatial Hotel Fontainebleau and 14 other ocean oriented resort hostleries of hardly less renown.

Delegates took time out for the annual exhibitors' entertainment, for inland waterways cruises, and for the "aquarama." Many sampled the sandy beaches and swimming pools, strolled midst the colorful profusion of tropical flora, and craned their necks to the stately palms.

The conventioners also spent a half day touring Dade County schools.

During convention week the international character of the association was stressed. Canadian colors were posted alongside those of the United States, and members of both countries sang "God Save the Queen," and "America." Two Canadians, appointed by Canadian President Percy M. Muir, headed the important resolutions and by-laws committees, and a fellow countryman delivered one of the three major addresses.

The multiracial nature of the membership also was demonstrated by the admission of qualified Negro delegates to meetings and social functions. Orientation suggestions were included in the welcoming remarks of Supt. Joe Hall, Dade County school system.

Convention 5 Star

During convention week the business officials, in assembly or through their board of directors:

1. Advanced President-Elect G. Alvin Wilson to the presidency and named other officers and directors, effective January 1. Mr. Wilson is assistant superintendent, business admin-

istration, Oak Park-River Forest High School, Oak Park, Ill.

2. Voted to go from a hotel format to an auditorium style convention beginning in 1962, when the association will meet in Dallas, October 14 through 18. Reconfirmed other convention sites as follows: 1960 (golden anniversary convention), Hotel Chase-Park Plaza, St. Louis, October 9 through 13; 1961, Royal York Hotel, Toronto, October 8 through 12.

3. Resolved to petition the federal government to strengthen the staff of the U. S. Office of Education to enable it to intensify its research in school equipment and supplies.

4. Amended its by-laws to create an "emeritus" membership for members who, after at least 15 years of active membership, have left school business, or who have retired. This membership is nonvoting.

5. Received a report from its organization, functions and procedures committee recommending changes in the structure of the board of directors and referred it for study to 1960 board members.

Interorganizational relations were stressed. In addition to including speakers from related disciplines on section meeting programs and panels, members met jointly with representatives of the National Organization on Legal Problems, the Educational Facilities Laboratories, Inc., the National Council on Schoolhouse Construction, the National School Supply and Equipment Association, and the School Facilities Council.

Another innovation was the allocation of space for professional displays of the American Association of School Administrators, American School Food Service Association, U. S. Office of Education, Dade County school system, and the U. S. Social Security Ad-

ministration. Also, there was a "showcase" of sample forms, blanks and materials used in school personnel work.

Professionally Oriented

"Business Management Improves Education" was the convention theme and "There's no business like school business" was its slogan.

Sustained by liberal helpings of fruit juice supplied gratis by the Florida Citrus Commission, the delegates regularly attended the 19 section meetings and discussion sections to which more than 100 speakers and panelists contributed over a three-day period. Explored were problems in finance, maintenance and operation, personnel, purchasing and warehousing, schoolhouse planning and construction, food service, pupil transportation, and related subjects.

Continued was the highly successful and popular clinic, which provided an opportunity to seek answers from experts seated at any one of the 36 tables assigned to problem areas in school business administration.

(Continued on Page 92)

Photo by Toloff Studio, Oak Park, Ill.



G. ALVIN WILSON, Oak Park, Ill., is the 1960 president of A.S.B.O.

**Survey of practices vindicates professional
viewpoint on who makes policy and who administers schools.**

Boards and superintendents across the nation agree on

Responsibilities for the School Administrator

RUSSELL T. SANFORD

Director Market Research, The Nation's Schools

OCCASIONAL rumblings are heard to the effect that school boards usurp the rightful authority of the school administrator. Wherever such allegations are fact, a dangerous situation exists, a situation inimical to education as a whole since it suggests the supremacy of amateur judgment in professional areas.

The research department of The NATION'S SCHOOLS recently undertook to determine the extent to which professional administration of school business affairs is impinged upon by lay board members. During the summer of 1959 the magazine sponsored two studies conducted by Professional Markets Research, Chicago. The studies, both concerning board member activity, covered such matters as the tenure of school board members, their background and school related interests, their gainful employment, their use of time on school affairs, understanding of their responsibilities, the extent of their preparation for board meetings, their participation in preparing budgets, in product appraisal, and in product selection, and their involvement in the procedures of school business.

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Michigan Ave., Chicago 11.

One study was made among board members, a second among school administrators. There was a high correlation in essential answers between those from administrators and those from board members. Within the extremely narrow range of divergence, very possibly lies the truth.

When asked who draws up the school budget, by items needed and estimated costs, 97.3 per cent of the 578 participating school board members attributed this function to the administrator and his staff, and 83.7 per cent mentioned no one else. Adminis-

trators, asked the same question, named themselves and their staffs in 93 per cent of the 912 replies. Board members mentioned themselves as budget makers in only 7.2 per cent of the replies, and only 1.4 per cent exclusively. Administrators mentioned board members in 4.3 per cent of the replies, only 0.3 per cent naming no one else.

Asked who originates purchases (pointing out the need for other than routine supply items), 99.3 per cent of administrator respondents and 99.1 per cent of board members named the

**Table I—Board Members' Appraisal of Their
Major Functions**

	Total Mentions
Policy making	221
Maintaining a school serving the best interests of the community	93
Assisting and cooperating with the administrator	90
Providing the best education possible within budget limitations	78
Choosing and backing a capable administrator	56
Choosing a competent teaching staff and other qualified personnel	55
Curriculum study and improvement	54
Financing	51
Maintaining good public relations with the community	50
Facilities	19
Budgeting	17
Construction	9

administrator and his staff. Administrator and staff were mentioned exclusively by 93.6 per cent of administrator respondents and by 89.1 per cent of board members.

Another inquiry probed the question of responsibility for comparing, appraising and testing makes of products needed. Administrator and staff were mentioned by 95.6 per cent of administrators answering, and by 96 per cent of the board members. Exclusive mentions of administrator and staff were given by 85 per cent of administrative respondents, and by 86.2 per cent of board members.

Here, in three related activities, it becomes evident that the school board overwhelmingly leaves these important business decisions related to budget and purchasing to the professional administrator and his administrative staff.

Approve Product Selections

Another question, put to board members only, concerned board approval of the administrator's product selections. The question was: "When recommendations for purchases are submitted for board approval, do you ordinarily accept the type or brand recommended, with explanation, by the administrator?" Of board member participants, 96 per cent answered Yes. To the further question, "If items originally recommended are not approved, does the board ask the school administrator to make further recommendations?" 97.8 per cent of the responding school board members said Yes.

These answers might be construed as meaning that a great many boards perform a "rubber-stamp" function. However, in the light of answers to the previous three questions, it appears that the board actually does employ a professional administrator in whom it has confidence and leaves to him virtually all major product buying decisions.

Board Confirms Decisions

It must be remembered that the school district is a unit of government and the governing body is the school board. Approval by the school board for purchases in excess of a stipulated minimum dollars is universally a legal requirement. Thus, school board members, if asked without qualification if they "participate" in purchases may reasonably and truthfully say that they do. However, as shown in this survey, their "participation" is principally making official the decisions of the administrator and his staff.

Tables 1 and 2 are significant in showing the school related interests of school board members and their understanding of their functions, as reported by board members themselves. It becomes evident from these tables that board members give most of their attention to the areas of education in which they can express the will of the community as to the kind of education and the kind of schools that will best serve educational purposes. Board members express great interest in curriculum, in getting good teachers and good schools, and in finance.

One other interesting aspect of the study is the wide range of occupations of board members. Among 578 school board members, each representing a different school district, 34 identifiable professions were represented by 123 respondents. There were 29 bank executives and employees; 100 farmers and ranchers in nearly all branches of agrarian activity; 77 widely diversified retail merchants. There were 32 skilled and unskilled laborers from a range of industries, and 22 civil service and other government employees; there were 51 housewives and an equal number of major and minor manufacturing executives. Only 15 professional educators were board members, mostly teachers or college instructors and professors. The remainder of those participating were spread over a range of jobs not readily classifiable. Only 93 reported ever having been professional educators.

The composition of American school boards parallels in range, though not in distribution, almost any cross section of the public and, with few exceptions, board members have little background or experience to qualify them specifically for school administration. It is only natural, therefore, that they refrain from active management of the schools beyond that within the defined range of their duties.

Another fact brought out in the study is that the school board in America is a changing group. The average term of office of a board member is 3.7 years, with a range of from 2 to 6 years. Board members actually serve an average of 6.6 years, with a range

Table 2—School Related Interests of School Board Members

RANK →	NUMBER ASSIGNING RANK												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Curriculum	231	132	57	40	30	22	18	7	4	3	1	0	545
Teachers' qualifications	150	179	70	41	15	18	17	8	8	0	3	0	509
Finance, appropriations	128	68	68	54	43	45	35	33	20	11	5	4	509
Schoolhouse construction	61	64	54	60	55	39	45	40	22	23	11	8	482
Community relations	58	45	64	68	77	64	43	21	27	23	10	3	503
Teachers' salaries	31	67	135	109	86	44	21	7	8	2	1	0	511
Utilization of plant	22	24	41	44	48	55	64	60	38	29	14	7	446
Classroom and instruction equipment	17	35	63	47	56	53	53	43	46	21	7	2	443
New equipment purchases	14	10	17	22	16	28	37	51	66	98	50	14	423
Noninstructional salaries	6	18	14	20	34	48	52	70	53	40	29	14	398
Product brand selection	5	8	17	6	2	6	5	12	19	31	73	164	348
Routine purchases	4	8	24	6	14	13	9	22	43	58	112	62	375

of from 1 to 39 years among those reporting. The median length of service for school board members proved to be 5 years.

Thus, it is apparent that the average annual turnover in U.S. boards of education is between 16 and 20 per cent, since the average board consists of 6 members (the range is from 3 to 35 members). Possibly because the average board of education is a wholly new group every 5 to 7 years, board members can scarcely accumulate the experience required for active participation in the actual management of the schools, even if they were so inclined and had the time.

Another factor in the performance of school board members in accordance with accepted standards is the source of their indoctrination into their duties. The 576 board members re-

porting on their sources of information on school board duties gave a total of 1406 mentions to various sources: 440 mentioned other board members; 390 mentioned the school administrator, and 360 mentioned a manual for board members.

Who Informs School Boards?

The consensus of 912 school administrators reporting on this subject was somewhat different, as might be expected from a group asked to speak for another group. Of these, 873 believed the administrator to be the chief source of information for members of the school board, while 44 mentioned other school board members in this connection.

The monthly meeting is almost universal among school boards, with board members (administrators were

not asked this question) reporting that the average board meeting lasted an average of 3½ hours, with a range of from 1½ to 6 hours.

Board members also reported devoting an average of 10.6 hours per month beyond the scope of board meetings to school matters. The 524 reporting on the use of this additional time mentioned conferences, conventions and meetings with other than board members 224 times.

Inspecting school property was reported by 108 respondents, while 92 mentioned study, reading and gathering information. Such activities as inspecting, planning and discussing new buildings and sites, committee work and meetings, visiting schools and holding conferences with administrators, and preparing reports were

(Continued on Page 118)

Table 3—Who Selects and Recommends Specified Products (by Make or Brand)

ADMINISTRATORS' REPLIES

	Administrator and/or Staff	Board Member	Architect	Other
Shop equipment	819 (89.8%)	30 (3.3%)	50 (5.5%)	101 (11.1%)
Textbooks	864 (94.7%)	1 (0.1%)	2 (0.2%)	90 (9.9%)
Lighting fixtures	608 (66.7%)	105 (11.5%)	467 (51.2%)	32 (3.5%)
Classroom seating	891 (97.7%)	94 (10.3%)	48 (5.3%)	26 (2.8%)
Movie projector	882 (96.7%)	11 (1.2%)	3 (0.3%)	41 (4.5%)
Cafeteria equipment	776 (85.1%)	96 (10.5%)	244 (26.7%)	83 (9.1%)
Buses	557 (61.1%)	256 (28.1%)	8 (0.9%)	114 (12.5%)
Business machines	866 (94.9%)	49 (5.4%)	3 (0.3%)	50 (5.5%)
Gymnasium equipment	855 (93.7%)	49 (5.4%)	80 (8.8%)	83 (9.1%)
Heating equipment	562 (61.6%)	229 (25.1%)	550 (60.3%)	29 (3.2%)

% = per cent of number answering (912)

BOARD MEMBERS' REPLIES

	Administrator and/or Staff	Board Member	Architect	Other
Shop equipment	513 (88.7%)	38 (6.6%)	47 (8.1%)	36 (6.2%)
Textbooks	552 (95.5%)	13 (2.2%)	0	28 (4.8%)
Lighting fixtures	277 (47.9%)	77 (13.3%)	342 (59.2%)	21 (3.6%)
Classroom seating	516 (89.3%)	65 (11.2%)	72 (12.5%)	8 (1.4%)
Movie projector	542 (93.8%)	34 (5.9%)	4 (0.7%)	11 (1.9%)
Cafeteria equipment	419 (72.5%)	71 (12.3%)	186 (32.2%)	19 (3.3%)
Buses	288 (49.8%)	202 (34.9%)	2 (0.3%)	34 (5.9%)
Business machines	535 (92.6%)	64 (11.1%)	2 (0.3%)	17 (2.9%)
Gymnasium equipment	510 (88.2%)	57 (9.9%)	66 (11.4%)	34 (5.9%)
Heating equipment	246 (42.6%)	135 (23.4%)	345 (59.7%)	19 (3.3%)

% = per cent of number answering (578)

OPINION POLL

Too Much Emphasis on High School Varsity Athletics?

1. Is high school varsity athletics overemphasized:

for football?

Yes — 48% No — 49% No opinion — 3%

for basketball?

Yes — 45% No — 51% No opinion — 4%

2. Do you favor organized athletic contests for elementary school children, such as Little League baseball?

Yes — 50% No — 49% No opinion — 1%

3. Are state basketball tournaments too strenuous for high school students?

Yes — 41% No — 54% No opinion — 5%

Based on a 4 per cent proportional sampling of all school administrators in continental United States, this survey brought a 34 per cent response.

WHEN the question of "overemphasis" on high school varsity athletics is put to them, school administrators find their ranks split almost straight down the middle.

The great response prompted by this month's opinion poll question finds 48 per cent testifying that varsity football in high school is overemphasized, and 45 per cent sharing this opinion about basketball.

Some cite the amount of time devoted to athletics as an area for concern. Said a Indiana superintendent: "Administrative time allotted to athletics and academic studies is way out of proportion in favor of athletics."

"The danger lies," declared another schoolman, "in overemphasizing athletics to the point where they take up school time that students should spend on studies!"

Many felt that the amount of money being spent for athletics is not justified in relation to the number of students being benefited. Voicing the consensus of this group, a New Yorker proposed: "We need more physical education and less varsity athletics. A well rounded physical education program, providing participation for all, . . . should be of first consideration, especially when there is not enough money to do both jobs satisfactorily."

From the Hoosier state comes the comment: "We are very much in favor of competitive athletics, but on a much less commercial basis."

"Athletic activities are very worth while and desirable," added a Massachusetts superintendent, "but too often the number of contests and the premium on winning are overdone."

Overemphasis on Football

Most administrators who differentiated between overemphasis on football and on basketball believe football to be the more common area of overemphasis. One such respondent was a Texan who maintained that the "concomitants of football — pep squads, drum and bugle corps, extra band outfit, costumes, expensive equipment, awards for certain of these groups — have elevated and aggrandized this sport beyond its rightful station in the educational scheme."

Some superintendents who found emphasis on basketball most objectionable pressed for limiting the number of games to one per week, and not on a school night.

Qualifying comments from both sides of the issue charged "school officials in individual systems" with the "responsibility for maintaining the necessary balance between athletics and the educational program as a whole." A few administrators supplemented their votes with opinions that "less and less emphasis is being placed on sports" (California), and "the majority of educators are trying to control this overemphasis" (Georgia).

Though the slim majority agreed that high school varsity athletics is not overemphasized, it is interesting to note that few administrators supported this opinion with comments. In support of his negative vote, a Minnesota superintendent commented: "The interest in high school athletics deplored by some is merely a reflection of the attitude of our whole society. It may be that this alleged overemphasis is not as great or as bad as it may seem. Mankind needs physical and emotional outlets."

A Pennsylvanian suggested that "athletics, like other extracurricular activities, is an essential part of our over-all educational pattern. Without some of these outlets we would have other serious problems with children."

Another near equal division of opinion was registered on the topic of organized athletic contests, such as Little League baseball, for elementary school children. Fifty per cent favored such contests, 49 per cent did not.

Many superintendents thought that "a good summer program of recreation should be sponsored by the school or some civic group." Others, while favoring an athletic program during the summer, stressed "proper management" and indicated that "careful plans should be made to alleviate, as much as possible, adult pressure on children."

An Idaho schoolman does not favor a "competitive program for the elementary school." Some others agreed with him and believed that "much value might be gained from Little League if the factor of interschool competition were not present."

Favor Basketball Tournaments

State basketball tournaments are not too strenuous for high school students, according to 54 per cent of the superintendents polled this month. But, some of them added that they have a tendency to disrupt the regular school program.

Whereas some superintendents feel that basketball tournaments are not too strenuous if no more than one game per day is played, many believe that they are too strenuous because often two games are scheduled for one day. A North Carolina administrator regretted so many play-offs and tournaments prior to the state competition and a New Yorker flatly stated: "After five months of basketball, the season should end without tournaments." ■

Rural educators enjoy Western hospitality
at annual convention. Four hundred delegates
and speakers seek

QUALITY FOR RURAL SCHOOLS

MILDRED WHITCOMB

SEATTLE. — While no longer confined to geographical areas where school kids are scarcer than cows, rural education is a separate entity still. A newer type of rural education is called "rurban." It flourishes where the cow pasture has given ground to thousands of "ranch houses," and where animal husbandry, while spectacular, is strictly for the bipeds.

On the shores of Puget Sound, October 23 to 28, the N.E.A. Department of Rural Education and the Division of County and Rural Area Superintendents consecutively pondered, argued and sometimes demonstrated ways to introduce the *quality of excellence* into the school program of rural and small communities. They didn't worry much about the disparate sizes of their school populations, or whether the senior class has six or 100 students. Their main concerns were these:

How're you going to keep 'em (good teachers) down on the farm? How're you going to retrain older teachers to use gladly and profitably the splendid machines and materials now available to them through N.D.E.A.'s Titles III and V? How're you going to prepare public and staff to embrace consultant services? How're you going to widen teacher horizons so that, through their influence, our people will "leap governments" to strengthen international friendships and to help develop the world's underdeveloped peoples?

Plenty of Color

Always warm and colorful, Western hospitality spilled over the meager 400 persons who had made the extralong journey to the conventions. Washington had expected 1100 and had provided filberts, apples, cone corsages, and fun in abundance. There were tours to The Mountain (Rainier, of course), a cruise on Lake Washington

in 47 private craft, a salmon barbecue, and a journey to a 707 jet plant. (At Boeing's they are working now on the 720, a commuter jet that will make tiny runs from New York to Chicago and from Chicago to Denver.)

The hostesses and hosts were gay in costumes as well as conduct. The Washington women superintendents wore circular felt or cotton skirts with appliqued or handpainted symbols of their localities — pine cones, apple orchards, daffodils, grand or lesser coulees, wheat fields. The braver of the men superintendents sported handpainted ties, a tall Douglas fir on a white ground.

Supt. Mary C. Pierce of Adams County, Ritzville, strutted a future museum piece. Around the wheat elevators and evergreens of her voluminous skirt she had built a calligraphic fence. The front panel bore the autographs of Governor Rosellini, national school leaders, and government representatives. Her own county folk inscribed their names on a side panel. Other dignitaries and delegates took

up their pens until the jovial lady was hard put to it not to sit down on a VIP.

A fair measure of excellence and quality marked the programs. Notable were the addresses of Sen. Gale W. McGee (D.-Wyo.) and Kenneth H. Hansen of Gunnison, Colo., and a dramatic enactment of a county superintendent's plight as citizens and taxpayers resisted an important new service. The dramatics were emceed by Carl Munson, guidance coordinator of the Seattle schools. A dozen county superintendents from near and far played the roles with riverboat zeal and with the conviction that springs from familiarity with dissident citizens.

Senator McGee, new in Washington, having been a professor of history at the University of Wyoming for 20 years, developed three ideas in regard to the teacher's role in the world scene. They were largely based on a recent trip to Russia.

"People are different" was his first idea. "We are not going to make little Americans out of everybody and we
(Continued on Page 106)

THREE CURRENT PRESIDENTS: W. W. Eshelman of the N.E.A.; Winston Brown of the Division of County and Rural Area Superintendents, superintendent of Waukesha County schools, Waukesha, Wis., and W. E. Bishop of Department of Rural Education, county superintendent, Englewood, Colo.



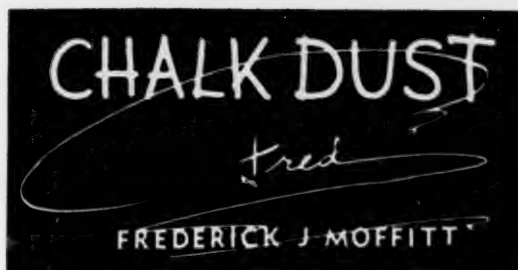
ADMINISTRATOR'S WARDROBE

ONE OF the most costly items in the personal budget of a school administrator is the maintenance, repair and replacement of his wardrobe. The rules and ethics of superintendology demand that an administrator shall be reasonably and substantially attired at all times, and must indulge neither in extravagant cravats nor in the more lively modern custom of baring the knees in public. This demand for conservative styling calls for a large and diverse wardrobe, including a football uniform to impress sports editors, an academic robe for the peculiar ceremonies at the nearest temple of higher learning, and a dinner jacket into which the superintendent can be shoe-horned when unexpectedly called on to toastmaster the visiting firemen at the Odd Fellows reception.

In addition to this miscellaneous apparel, the school head must also own, borrow or rent many more practical items of clothing because of the occupational hazards in connection with his job. The need for replacement is particularly serious. In combat with multitudinous citizens committees the superintendent, more often than not, loses his shirt. Meanwhile, at the meeting of the Junior Button Collectors Guild (an indispensable part of many modern school curriculums), those busy little collectors snip off sundry buttons until neither the superintendent nor the community is sure just how many buttons, if any, he is missing. In lieu of more substantial contributions his wife donates his ancient waistcoat to the current charity drive, and what little clothing he has left grows too tight because of other community pressures such as church suppers and clambakes.

But modern technology, sparked by the United States Army, is rushing to the rescue and tomorrow's school administrator may soon discard his old trench coat and look to the future with confidence that he will be adequately dressed. The army has now invented some brave new habiliments for its soldiers and a glance will show that this modern battledress is peculiarly fitted and suited to a school superintendent. The lifetime expectancy of the new material will greatly increase the lifetime expectancy of the superintendent. It is guaranteed to protect the wearer against small arms fire and nuclear explosions.

The new clothing has many further advantages. It includes a helmet of plastic laminate (a modern necessity for school administrators who, alas! must often supervise building construction rather than curriculums) containing a small radio antenna with sending and receiving sets. Thus, the administrator will



be able to answer his telephone, coach the football team, and orate at all teachers meetings. Of course, like other recent scientific advances, this may not be regarded as an unmitigated blessing by the teachers.

But behold! The best is yet to come. The most startling feature of the new attire is a special jump belt which, on pressure of a button, enables the wearer to jump from here to there. It will propel the proprietor a distance of 30 feet. Here is the ultimate dream of any school administrator. Nevermore need he be stranded on that much-feared spot which is the common fate of school administrators. In the twinkle of an eye he can change spots quicker than the proverbial leopard. Of course, there are some wiseacres who assert that this particular ability to get off the spots is already practiced by many administrators without benefit of rockets. But as Aristotle observed: "You can't please everybody all the time."

THE ANIMALS SCHOOL

IT WAS PAST time for the annual change of superintendents at the Animals School. True enough, the old Owl who had served as a pinch hitter for the Fox, who had replaced the Dodo, had done well enough, but the animal taxpayers were restless. They felt that the Owl was demanding too many clam shells and that his wife was too noisy and changed plumage far too frequently. "What we need," said the animals, "is a more Conservative Approach."

So they appointed a committee to draw up qualifications and to write to the dean of the nearest school of education, a sly old beaver.

"The modern school superintendent," replied the dean, "should be able to shoulder a heavy load of responsibility and stand up under plenty of heat. You do not need a flashy candidate or one with exceptional speed, but you ought to get a patient plodder who will go toward a goal that may be a long way ahead."

When the committee looked over the qualifications, they could find only one

applicant who filled the bill, and this was a Camel. The Camel had an excellent reputation for steadiness and sobriety and also happened to be first cousin to the dean himself.

Indeed, the Camel seemed to have every attribute commonly deemed desirable for a good school superintendent. He was decidedly cold blooded, his boiling point was low, and he ruminated and chewed whenever faced by any real decision. If a storm arose (and high winds were a daily occurrence at the Animals School), the Camel displayed an admirable habit of turning his south side to the tempest until it blew itself out; this, in itself, is evidence of ability in any competent school administrator. The Camel, too, was not looking for great financial rewards, and this endeared him to the committee. So he was promptly offered a contract.

Alack, however, as soon as the Camel took the job, it was quickly observed that he had a foot like an elephant and, worse yet, he had a habit of putting it in his mouth every time he opened the latter or spitefully kicked the innocent bystanders. In a word, he made no friends and influenced no enemies, and when the wind was in the wrong quarter (to put it euphemistically) he smelled, so his public relations was not good.

Unfortunately, too, he had a low way of spitting at members of the Animal P.T.A., and when he spat he didn't fool. This is not acceptable practice for a school administrator. So the Camel did not last long as superintendent of the Animal School, but the animals were not particularly surprised at that. It happens in many educational situations.

EDUCATIONAL TRENDS

THE convention speaker had just completed his brilliant summary of current educational trends, including public involvement, the necessity for citizens committees, togetherness and all-out participation. "If that young fellow is right," said the cynical old superintendent in the rear seat, "it is time I beat a psychopath to his door."

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New York court rules

Christmas Crèche May Be Placed on School Grounds

LEE O. GARBER

Director, Educational Service Bureau, University of Pennsylvania

THE extent of the authority of a school board to permit the use of school property for other than school purposes is often the question for litigation. Such was the case in New York state recently.*

In 1956, a committee known as the Crèche Committee was formed in the village of Ossining. Its membership consisted of Catholics, Protestants and Jews. Its purpose was to obtain funds to enable the placing of a nativity scene within the village during the Christmas season.

After studying possible locations for the placing of this scene, the committee decided to ask the board of education for permission to construct the crèche on the campus of the junior-senior high school. The board, by official resolution, granted this request, and the crèche was put up in December 1956, just a few days before school closed for Christmas vacation. It was taken down before school reconvened after vacation.

Crèche Put on School Grounds

No action was brought to restrain the board from putting up the crèche, and so in 1957 the board again permitted the Crèche Committee to place the nativity scene on school property. This time, however, it stipulated that the crèche was not to be set up until school had been dismissed for vacation and that it was to be dismantled before school took up after vacation.

As a result of this action on the part of the board, suit was brought by several plaintiffs (Baer and others) who were residents, taxpayers and/or parents. In general, the plaintiffs presented three bases for bringing the action. Some based their right to bring suit upon the fact that they were resi-

dents and taxpayers. Some based their right upon the fact that they had children in the elementary school, and at least two based their right upon the fact that they had children in the junior-senior high school.

The plaintiffs' contention was that the action of the school board was in violation of the First and Fourteenth Amendments to the Constitution of the United States, as well as Article I, Section 3 of the constitution of New York State. While the action was pending and before it was decided, the plaintiffs moved to have the board restrained and enjoined from permitting the placing of a crèche "on any property subject to its jurisdiction and to rescind any permission granted in that regard." The court denied the plaintiffs' application, on the ground that the question of constitutionality "under the particular facts and circumstances existing in the case at bar may only be determined after a full and plenary trial predicated upon a complaint containing sufficient allegations of damage" (170 N.Y.S. [2d] 43). This case then continued to trial.

The defendants, members of the board of education of the Ossining school district, challenged the right of the plaintiffs to bring this action on several grounds. With respect to those who were residents and taxpayers, the court noted that even if it were admitted that most, if not all of them, were taxpayers in the district, "that fact alone would not give them a sufficient interest to maintain the suit." Consequently, it held that the complaint must be dismissed with respect to those plaintiffs who allegedly had no interest in the case other than that they were residents and taxpayers.

It also held that the complaint should be dismissed with respect to those whose interest in the matter

sprang from the fact that they had children attending the grade schools within the district. In so doing, the court said: "Whether their children will ever attend the Ossining Junior-Senior High School is entirely speculative, and there is nothing in the record to indicate that the board of education has ever authorized or considered the placing of a crèche on other school property."

With respect to the two remaining plaintiffs, the court noted that, while they testified they were parents of children then in attendance in the junior-senior high school, one parent did not have a child in attendance at the time of the act complained of. Consequently, it held the action should be dismissed with respect to him.

Recognizes Plaintiff's Action

This left but one plaintiff, whom the court recognized as having a right to bring action. With respect to him, it held he was not entitled under the law to a permanent injunction as requested because the "basic requirement for such a decree is the danger of irreparable injury."

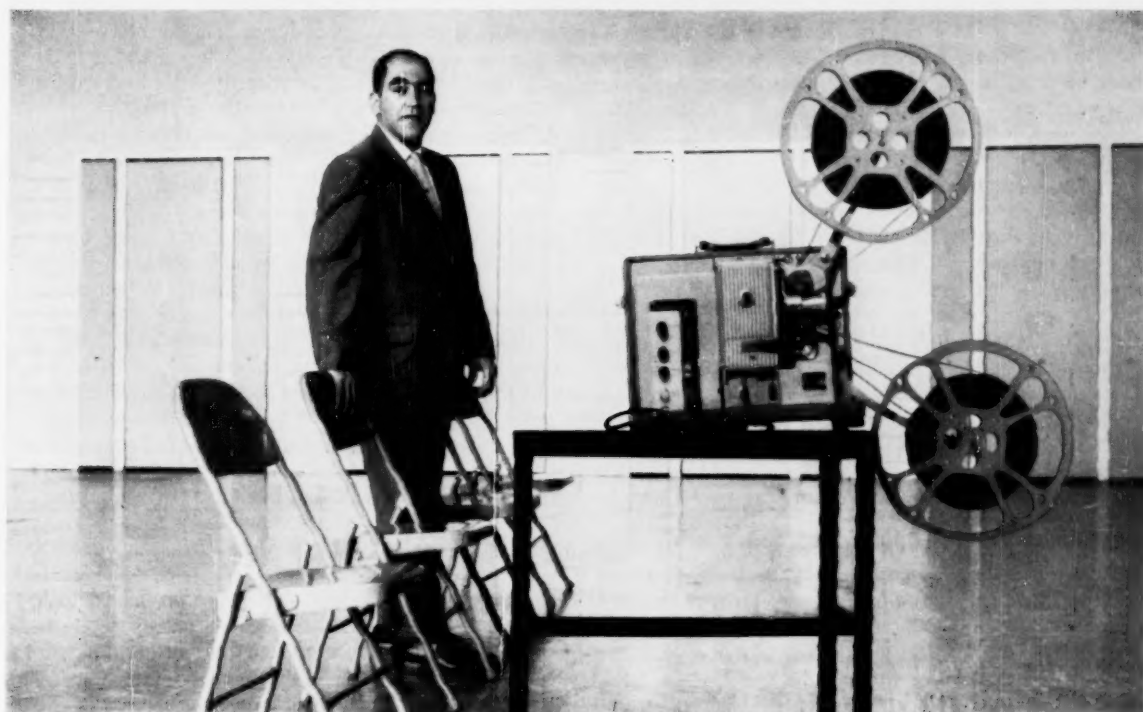
Moreover, the court pointed out that the act which the plaintiff sought to enjoin was terminated when the crèche was removed from the school grounds early in January 1958, and that it did not appear that anyone had permission at the time the action was brought to place or maintain a crèche on school property, or that there was any "pending application for such permission."

Nevertheless, in spite of the fact that "injunctive relief should not be granted against a fact accomplished," the court said: "However plaintiff will not be deprived of his day in court." It took this position on the ground that, while the action sought to be enjoined had terminated, the controversy in the

*Baer v. Kolmorgen et al., 181 N. Y. S. (2d) 230.



At the new Orchard Hill Elementary School, Leetonia, Ohio, selected by A.A.S.A. for its exhibit of outstanding school designs, George Trombitas, Assistant Principal, says:



**"We're a country school with ambitious ideas involving A-V aids...
We can't tolerate A-V equipment that requires frequent servicing...
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"You don't have to be a city school to exploit the advantages of audio-visual methods. In fact, we feel our expanding A-V program deserves some credit for our students taking two of the top 10 honor awards in the county—competing with city schools.

"But out here in the country we don't have the quick repair service for A-V equipment that city schools have. This means we use only equipment we feel will withstand student operation without interrupting breakdowns."

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EASTMAN KODAK COMPANY, Dept. 8-V, Rochester 4, N. Y.

community had not ended at that time. The creche had not been removed because of any change in board policy, but because of the very nature of the display itself. Because it would be extremely difficult for the plaintiff ever to obtain a judicial determination of a constitutional question if the creche were authorized year after year, unless the court viewed it as a continuing controversy, it decided to consider the case on its merits.

In so doing, the court made it clear that there was no evidence to the effect that any public school employee had been involved in the placing of the creche, and it also noted that no public school funds had been used, and that even the electricity used to provide the nightly illumination was paid for out of private contributions. It also pointed out that it has long been a tradition in Ossining for the board to receive and grant similar requests of various groups, such as the Heart Fund, the Cancer Fund, and the Red Cross, to place signs or symbols on the school lawn and that no similar privilege had been requested by any other religious body and, of course, no religious body had ever been denied this privilege by the school board.

First Amendment Is Applicable

In deciding this case on its merits, the court took cognizance of the fact that the U.S. Supreme Court had held that, by virtue of the Fourteenth Amendment to the Constitution, the prohibitions contained in the First Amendment are applicable to the actions of states and their subdivisions. It also noted that Article 1, Section 3 of the New York constitution reads in part as follows: "The free exercise and enjoyment of religious profession and worship, without discrimination or preference, shall forever be allowed in this state to all mankind . . ."

The court then pointed out that there appeared to be two general bases for attacking the constitutionality of a resolution such as the one adopted by the board in this case. It said, *first*, where a person is required to submit to some religious rite or instruction or is deprived or threatened with deprivation of his freedom for resisting that unconstitutional requirement; *second*, where a person is deprived of property for unconstitutional purposes (such as a direct or indirect tax to support a religious establishment).

Because no question of the use of public funds or the time of school personnel was involved, the court reasoned that the second basis could not be seriously or successfully urged. The plaintiff contended that the creche was a sectarian religious symbol and that what it symbolized was inconsistent with his religion and that of his children. The court answered this by pointing out that the fallacy in his argument was obvious because the school was not in session when the creche was displayed in 1957. It also noted that the influence, if any, of religious symbolism could not be escaped during the Christmas season, and that it would be difficult to state as a practical matter that the fact the symbol appeared on school property gave it any greater influence than if the symbol had appeared on private property.

Court Cites McCollum Case

While the plaintiff attempted to bring his case within the ruling of the U. S. Supreme Court in the famous McCollum (released time) case, the court noted that the Illinois case involved the actual teaching of religion in public schools, during the time set aside for schools, by instructors approved by sectarian groups. Consequently, the facts in that case were in no way comparable to those in the case before it. The court also took the point of view that the presence of the creche on school property was not "teaching" within the meaning of the McCollum decision, because "teaching" presupposes the presence of students and "we must again repeat that school was not in session while the creche was displayed in 1957."

Finally the court said, "The creche is undoubtedly a religious symbol," but it appeared to reason that this was without effect here because all are free to interpret its meaning according to their own religious faith. If, however, the school were to limit that freedom or if it were to give instruction as to its meaning, then a different situation would exist. Here, the board merely accommodated a religious non-denominational group.

In commenting on this, the court said: "If such accommodation violates the doctrines of absolute separation between Church and State, then it is time that that doctrine be discarded once and for all. Absolute separation

is not and never has been required by the Constitution." The court then quoted from Mr. Justice Douglas who, in speaking for the U.S. Supreme Court in the famous *Zorach v. Clauson* case (released time) 343 U.S. 312, said:

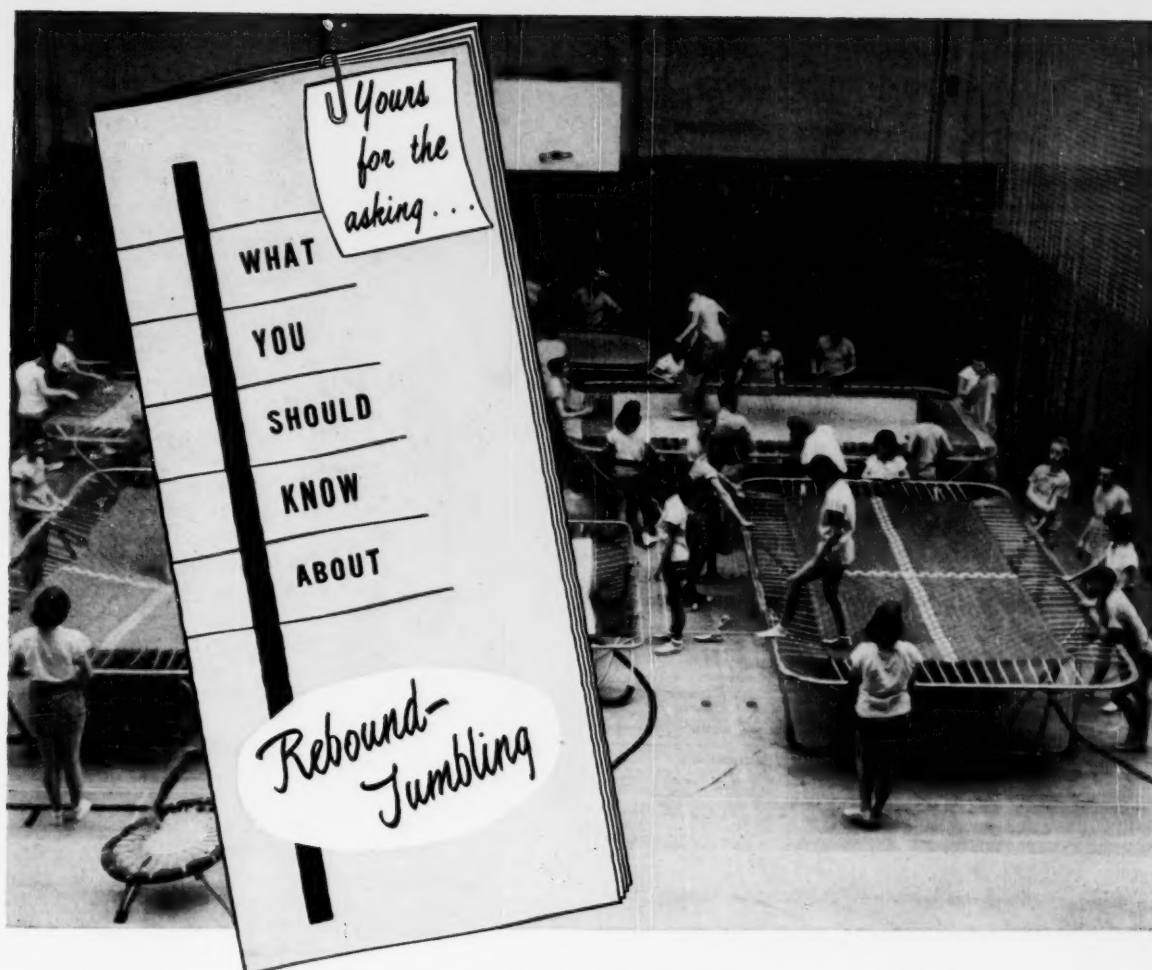
"The First Amendment, however, does not say that in every and all respects there shall be a separation of Church and State. Rather, it studiously defines the manner, its specific ways, in which there shall be no concert or union or dependency one on the other. That is the common sense of the matter. Otherwise the state and religion would be aliens to each other — hostile, suspicious and even unfriendly."

As a result of its thinking, the court concluded that by no process of legal reasoning could the board's action in granting permission to the Creche Committee to place the nativity scene on the school grounds be considered as an establishment of religion. Neither could it be considered as a denial of the right to worship. The site was chosen not because it was school property but because of its location and because of the amount of space available. The board simply cooperated with the committee. Its action was a mere accommodation.

Finally, the court summarized its thinking by saying: "Privileges and benefits should not be denied to individuals or organizations merely because of their religious affiliations or because they may be engaged in some activity of a religious nature . . . The test is the First Amendment. It has not been violated here."

Refers to Thomas Jefferson

In this case the court provided further explanation of Thomas Jefferson's comment, in 1802, to the effect that "a wall of separation [exists] between Church and State" — one which courts, on many occasions, have found it necessary to expound. This case adds a bit more to the sum total of such explanations. Needless to say, as far as New York is concerned, it seems to give the school board authority to permit the use of its property by religious groups, if it sees fit, provided it makes no contribution to the cause of the group through the donation of funds or time of its employees. It should be noted, however, that the board must not act arbitrarily and that it must treat all groups alike. ■



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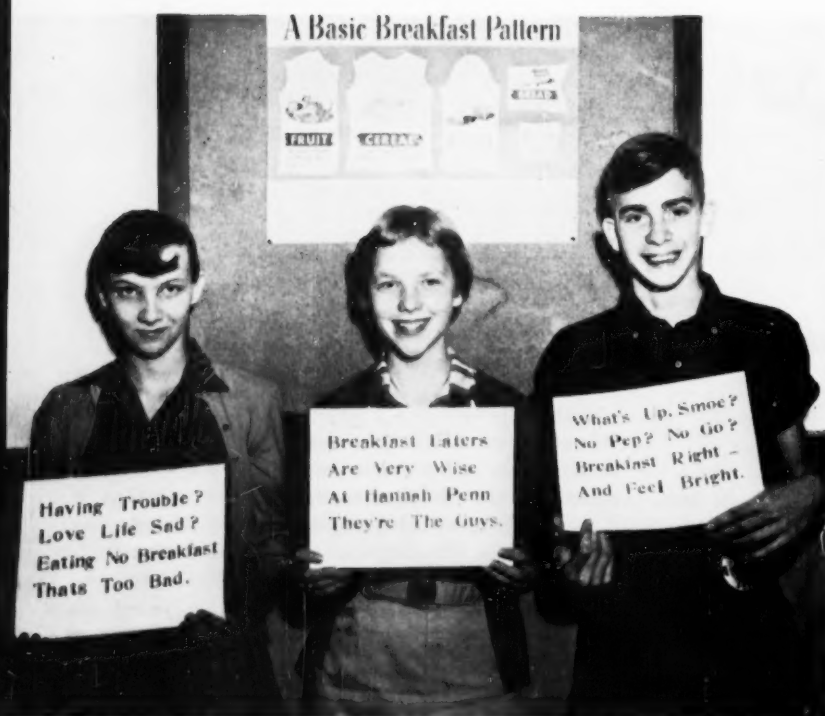
ADDRESS

CITY STATE

SCHOOLS CAN TEACH TEENS TO EAT RIGHT. HERE'S HOW

ANNA DE PLANTER BOWES

Director, Division of Nutrition
Pennsylvania Department of Health



STUDENT COUNCIL members put on a breakfast eating program each morning for a week to improve the food habits of teen-agers.

SCHOOL health examinations and research studies in many parts of this country indicate that teen-agers are often the most poorly nourished group in the population. While figures vary from state to state, from urban to rural communities, and for various socioeconomic groups, the over-all consensus is that too many teen-agers have poor nutrition. This has been found to be especially true in Pennsylvania.

Current summaries of food intake, food habit surveys, and medical examinations from many of the state's counties reveal the following:

1. Teen-age girls have poorer food habits and poorer nutritional status than boys.

2. Anemia is more prevalent among girls than boys. The girls, too, have "tired blood."

3. Underweight and overweight are more frequent among girls than boys.

4. Skipping breakfast was mentioned most frequently as a poor food habit by both boys and girls.

Awareness by school personnel that these situations exist often results in efforts to encourage teen-agers to improve their food habits. It is most desirable to have the students themselves develop the plan. If that is not feasible, the students should be represented in the development of the plan through the student council or by other method.

Simple surveys that can be conducted easily and quickly are desirable. An example of this type was recently conducted by the teachers of physical and distributive education at John Harris High School in Harrisburg, Pa. Students, 14 and 15 years of age, were asked to score themselves during a class period on two questions, with suggested points to check their practices.

Some of the pupil comments following this survey were:

"Holy cow! Now I can see why I'm tired all the time!"

"Could these habits be the cause of all my skin trouble?"

(Continued on Page 88)

GO ELECTRIC for Greater Versatility TOASTMASTER "SQUARE-YARD" RANGES



MODEL HR36D (center) "All-Purpose" Range—three independent 250° F.—850° F. top sections, almost 6 sq. ft. of versatile surface, for all range top cooking; 1-pan bake & roast oven.

MODEL HR36G (right) "Multi-Purpose" Range—2 "All-Purpose" top sections—each with thermostatic control from 250° F. to 850° F.; two 3-heat hot plates; 1-pan bake & roast oven.

MEET EVERY HEAVY-DUTY COOKING NEED

Whether your cooking operations are specialized or varied, there's a Toastmaster "Square-Yard" Range to meet your requirements and provide the cool, clean, efficient and economical service of *modern electric cooking!*

A complete selection of range top and base combinations allows you to choose the cooking features you want to handle all your heavy-duty cooking. And Toastmaster "Square-Yard" Ranges assure you of a better finished product, whatever your demands; stock bulk cooking, pan frying, griddling on top . . . or baking and roasting in the convenient "All-Purpose" oven base.

Matching Toastmaster "Square-Yard" Ranges can be banked to provide unlimited cooking area and customized kitchen appearance. All models are equipped with 6" tubular legs *at no extra cost*—to meet critical National Sanitation Foundation standards. Optional backshelf and backshelf broiler units increase their versatility.

Discuss your food preparation requirements with your Toastmaster distributor—and learn how Toastmaster heavy-duty electric equipment can boost your kitchen efficiency, save time, cut costs.



ALL-NEW TOASTMASTER GRIDDLE TOP RANGE 20G1-R

The most powerful griddle top ranges in the industry! Really four griddles in one, as each 9 in. of surface cooking area can be independently "Pin-Point" controlled from 100° F. to 450° F. for perfect hamburgers, bacon, pancakes—even fried eggs—all at once! In addition,

these "Square-Yard" masterpieces include either a full one-pan size Directional Heat "All-Purpose" oven, convenient and versatile cabinet base, or sanitary and economical table top base! The new Toastmaster Griddle Top range has been designed to meet *present and future* demands!



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8¢ PROFIT from a 10¢ SALE!

Game crowds will produce the profits that can be used by any school in a hundred ways. Just serve 'em popcorn, popped in a CRETORS POPCORN MACHINE. No other food is as popular. No other money-making enterprise gives your school such a high return for such a small investment.

Write for "The Popcorn Profit Story" and illustrated literature. Delayed payment plans available.

Complete line of floor and counter model popcorn machines for any school. Earning capacities from \$12 to \$75 per hour.



How Students Ranked on Proper Eating Habits

Questions	Answers
Do you include each of the basic seven foods?	Judged best
Do you eat the proper amount of food?	Second best
Do you eat a variety of foods?	Second poorest best
Do you eat three meals a day?	Poorest
Do you chew foods well?	Third poorest
Do you try to eat in a pleasant environment?	"Sometimes"

How Students Ranked on Poor Eating Habits

Questions	Answers
Do you skip breakfast?	Judged poorest
Do you skip lunch?	"Not often"
Do you skip dinner?	"Seldom"
Do you skip three meals?	"Rarely"
Do you chew poorly?	"Too often"
Do you eat too many sweets between meals?	Judged second poorest
Do you drink too many soft drinks?	Judged third poorest
Do you hurry and make interruptions at meals?	Almost universal

Improvement in practices are noted among many pupils following such surveys. Self-evaluation is an effective tool in motivation.

Other Aids

At summer workshops and at institutes, teachers and nurses are encouraged to work out plans for back-home projects. With assistance from the state nutritionist, this preplanning results in many effective nutrition projects involving school personnel, pupils, parents and the community. Some techniques for achieving success are:

Obtain the cooperation of the school authorities.

Enlist support from strategic personnel, such as the teachers of home economics, art and English and from the cafeteria manager.

Include student participation in original plans and for the duration of the projects.

Inform the local press, television and radio stations for publicity and recognition of efforts.

Evaluate results at a stated interval of time.

Some activities that have proved most helpful in improved health habits or appreciation of the role of food for health are:

Better breakfast campaigns. As stated earlier, poor breakfast habits rank high among teen-agers. School physicians and nurses report that mid-morning fainting and headaches are commonest among students who skip breakfast or have an exceptionally poor or inadequate one.

Animal feeding experiments in classrooms. These are excellent to demon-

strate the effects on appearance and vitality.

Experimentation in home economics classes in cooking unpopular foods for best taste appeal, such as liver, green vegetables, and salads.

Participation in planning family meals.

Active cooperation in family marketing, cooking and serving of meals.

Opportunity to join a weight reduction club for pupils who are much overweight.

A recent Purdue University study shows that 52 per cent of teen-agers worry about weight. Another survey of 604 teen-agers reveals that 58 per cent have dieted.

Summary

The best motivation for inducing teen-agers to eat properly is derived from activities in which they themselves make some decisions, such as:

Letting them decide what they eat for breakfast, even if the choice is bizarre. A breakfast eaten with pleasure is better than none.

Allowing teen-agers some choices at school lunch rather than adhering to only one regular Type A lunch.

Letting them help plan lunches at school and meals at home. Responsibility for this for even a week makes them aware of the many facets of meal planning and the cost of food!

Giving them latitude in planning their snacks and food for their parties. Parents can help by making desirable foods both available and attractive.

Responsibility for making some of these choices eases many tensions both at home and at school. ■

Model 2T-P-60 with...

Fresh Water Prewash

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Recirculating Prewash

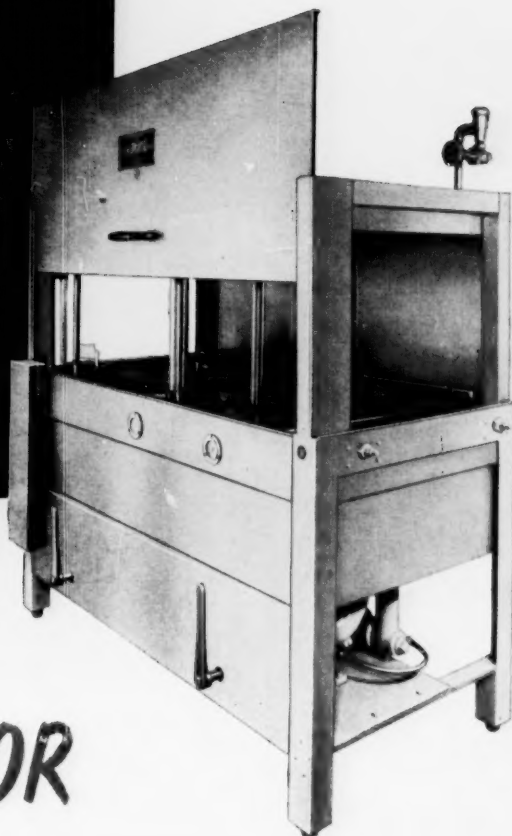
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✓ WASH

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**And a Capacity of 4805
Dishes Per Hour!**



NEW TOLEDO
conveyor dishwashing machine
with exclusive ...

PANORAMIC DOOR

It's another great Toledo "first" . . . to bring you speedier, more efficient dishwashing with big savings in space. Look it over—every compact 60" of it! Check the exclusive features to streamline kitchen service and cut costs. There's Panoramic Door to boost operator efficiency, make inspection and cleaning fast and easy. There's prewash, wash and rinse with a generous 4805 dishes per hour capacity . . . also Hi-speed pumps with Integral Motors, Zip-Loks on wash tubes, One Level Tanks, Dial-type Thermometers, Vacuum Breakers, Stainless Steel and corrosion-resistant construction! All yours now in a dishwasher built to those *highest standards* of quality that assure thoroughly reliable operation. Don't wait—SEND TODAY for complete information on this great new Toledo dishwasher that belongs in *your* kitchen!



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Toledo "18" Slicer . . . Combines handsome design with fast, easy operation. Easy to clean—parts tilt away or are quickly removable. Efficient sharpening. Positive gauge plate control.



Disposers . . . Heavy-duty for fast, trouble-free operation. Full choice of sizes from ½ HP up to 3 HP available in a wide selection of cone sizes.



Peelers . . . Offer fast, double-action peeling with abrasive on both disc and cylinder. Low waste. Portable and cabinet type.



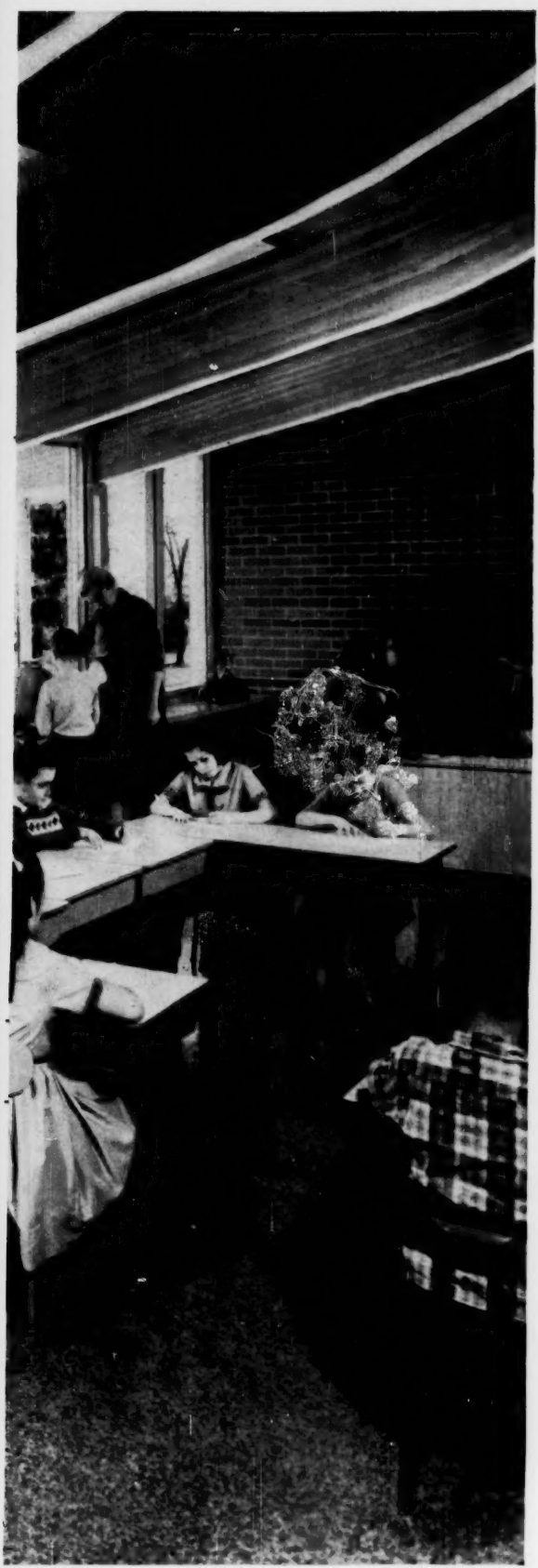
Door-Type Dishwashers . . . Fast, thorough, dependable. Efficient three-way door. Choice of timed automatic or pushbutton controls.



Hi-Speed Mixers . . . Available in 20 qt., 30 qt., and 60 qt. sizes. Modern clean-line design. Wide choice of attachments.

TODAY, MORE THAN EVER, IT PAYS TO GO **TOLEDO** ALL THE WAY!





The Lennox Living Laboratory: This \$50,000 school has been built by Lennox Industries, Inc. in Des Moines, Iowa to carry on research in the field of school classroom heating, ventilating and air conditioning. Extensive research and testing is carried on continuously, both with and without students present in the classrooms.

GAS and
LENNOX can
*provide your schools with the
finest in fresh air heating and
ventilating...*

at lower operating and building costs

This new Gas system automatically draws in fresh air from outside... warms, cleans, and circulates air quietly and evenly throughout the school.

It's hard to believe, yet 65¢ per square foot was the complete cost of installing a Gas-fired Lennox Comfort Curtain System in the Potosi, Missouri, High School — including automatic controls, ductwork, labor — everything.

This is unusually low, even for the Comfort Curtain, but costs of \$1.03 in Indiana; \$1.15 in Montana; and \$1.12 in South Dakota were *usual and typical* of the amazing savings offered by a Lennox Comfort Curtain System using Gas.

Money saving, safe Gas units are being installed in thousands of schools across the country. If you have specific questions, your local Gas company or a Lennox specialist — or both — will be available to assist the architects and engineers to illustrate how this equipment can best be applied to any specific school plan. Check the facts about Gas and you'll see — modern Gas heating out-performs all other fuels.

Call your local Gas company or write to Lennox Industries Inc., 1701 East Euclid Ave., Des Moines 5, Iowa. American Gas Association.

A.S.B.O.

(Continued From Page 75)

"This has been a very successful convention in two respects," Percy M. Muir, A.S.B.O.'s 1959 president, told *The Nation's Schools* in an exclusive interview. "First, it has succeeded in providing an element of inspiration for the men and women responsible for running the business affairs of our schools. I feel certain that the program has renewed the delegates' enthusiasm for their all-important task." But the most important accomplishment of the 1959 convention was of a "practical nature," he said.

"The section meetings that dealt with

the various aspects of school business affairs were well attended and really got down to cases. Practical details were offered and members not only were able to compare notes with their fellows from all over the United States and Canada, but they were given the opportunity, and took it, to work out many practical solutions to their problems, based on the experiences of others near and far. This, I think, is the real success," said Mr. Muir.

Changes Are Effected

Stating that every year cannot be a year of great change, Mr. Muir said the past year has been one of "consolidation."

"During the past year we have watched the important changes A.S.B.O. initiated in recent years being put into effect. We have spent the year making these changes work," he said. "This year also has seen A.S.B.O. lay the groundwork for establishing firmer relationships with state and regional professional organizations."

"The entire area of school business management is coming into its own in importance. A great upsurge lies just ahead when many more business officials will be introduced in districts. The gradual decline in the total number of school districts will mean fewer but larger units in which the need of school business managers will be even greater than it is today."

Earlier, Mr. Muir had told the convention of his personal pride in being the third Canadian in A.S.B.O. history to hold the office of president. He said the partnership of the United States and Canada is "an outstanding demonstration of international cooperation," and he thanked the "hundreds of sincere and dedicated members who have given their time and energy to support the work of the association."

He stressed the need for more research at the local level. "Each of us in the local sphere should choose an area of interest and do some research. We ought to then call it to the attention of the various research committees."

Despite the recent increase in A.S.B.O. membership fees, President Muir predicted a new high in membership by the end of this year. He told the school people they must perform their business tasks in such a way "that those who come after us will rise up and call us blessed."

At the opening service on Sunday evening, the Rev. Wyatt Kimberley observed that in this space age we are apt to consider ourselves superior to others and superior to our God. But, said the pastor of Our Saviour Lutheran Church of Lake Worth, Fla., no matter how high man reaches into the heavens, he still remains the creature, not the creator.

Epigram for Conventioneers

Jeff H. Williams succeeded admirably in "laughing the A.S.B.O. conventioneers through the past and preparing them to-day for tomorrow." The bard from the Sooner state showered business officials with new and slightly worn epigrams such as: "If we look long enough and closely enough we'll discover truths that have existed since the world began. . . Too many timid people are not able, and too many able people are not good. . . The trouble with the world is in the minds of men. . . We need more harness for too much horsepower. . . We spend too much time mountain climbing over molehills. . . Our country must keep itself strong enough to be feared, good enough to be respected. . . The future is heading

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Typewriter desks and posture chairs feature fingertip adjustments. Maintenance free modern design. Plastic tops. Units will not "walk" from vibration.

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COMPLETE
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The Man with the Lily Plan has the right answers to your lunchroom problems!



Lily Food Service Saves You Time...Money...6 Ways!

Individually, or in complete place settings, Lily® food service makes your lunchroom program easier . . . more efficient . . . more economical! Here's why:

- **Sanitary** — No chance of sanitation slip-ups here!
- **Controls Portions and Food Costs** — Lily offers the right size cup, container, dish or plate for every need.
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- **Saves Storage Space and Handling** — Stack easier, more compactly than traditional chinaware. Are about 30 times lighter for easier handling!
- **Quiet** — No rattle or clatter of other types of service. Makes eating more pleasant for students and staff alike!

And if you are transporting and serving from a central kitchen, paper service can be kept in inventory "on location"—

save handling, washing, storage. Shown above (left to right) are just a few of Lily's Food Service products that are being used in more and more school lunchrooms across the country.

- ≡1. 4-oz. Pleated Dish for salads and desserts.
- ≡2. 5-oz. Cold Cup for juices.
- ≡3. 8-oz. Hot Food container for soups, stews, casseroles. (You can bake and serve right in these Lily unwaxed Nestrites.®)
- ≡4. 6-in. Molded Plate for breads, pies, cakes.
- ≡5. 10-oz. Milk Design Cup (to be used with cup holder). Ideal for serving milk from refrigerated bulk dispensers.
- ≡6. 10 1/4-in. Molded Plate for all entrees.

Think it over. Doesn't it make sense to serve the Lily way, and eliminate practically every serving problem you have?

For further information on Lily Food Service . . . without cost or obligation . . . just write to:
 Lily-Tulip Cup Corp., Dept. NS129, 122 E. 42nd St.,
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These **USS** AmBridge Modular Schools were started this spring ... completed this fall!

Good-looking, economical steel schools
go up fast ... are strong and safe!

Building a new school needn't be a long, drawn-out project. An increasing number of school boards are getting new schools quickly by turning to USS AmBridge Modular Schools.

The two buildings shown here were begun just this spring—and completed for the fall term. Nobody was trying to set a speed record—AmBridge Modular Schools just lend themselves to simple, fast construction. These schools feature good, sound construction, lasting good looks and practical, flexible interior arrangement. Maintenance will never be a major problem either! And, of course, there's safety—both in the layout and the fire-resistant steel construction. USS AmBridge Modular Schools give you all of these advantages, *plus* economy.

USS AmBridge Modular Schools are built of standard steel components. They arrive at your site already assembled, ready for rapid construction in any season, cutting construction time and field work to a minimum.

AmBridge Modular Schools are as beautiful as they are sturdy. Exterior and interior panels are available in a wide choice of attractive colors. Porcelain and baked enamel finishes are available—or stainless steel if you prefer.

If you're faced with a classroom shortage, suggest that your architect contact us. You'll like the economy and lasting good looks of USS AmBridge Modular Schools ... and the early occupancy date.

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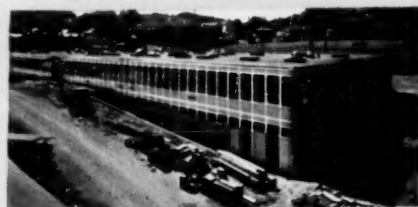
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If you are an architect, name of firm _____

City _____ Zone _____ State _____

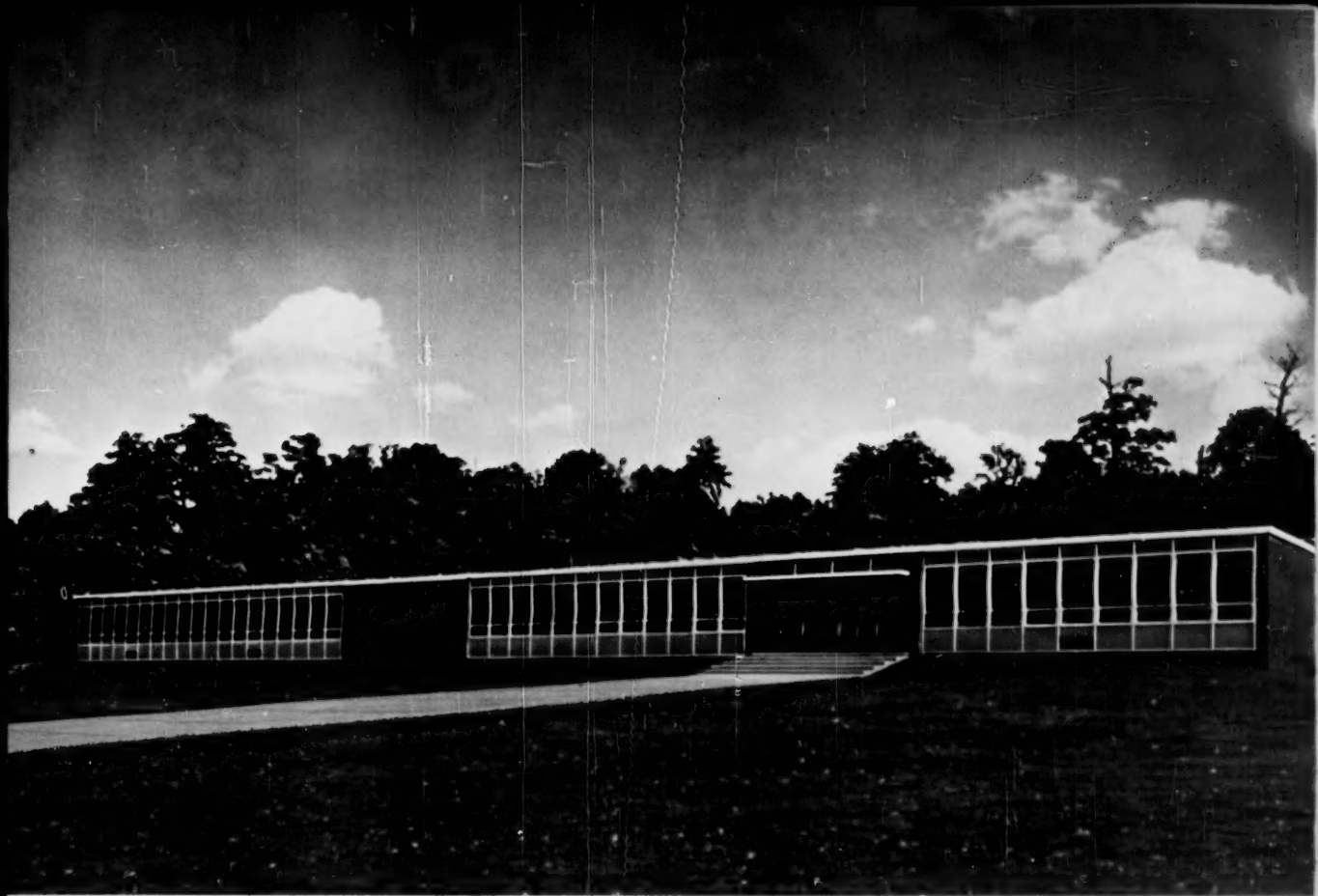


**Saint Catherine's
Roman Catholic School**
Wildwood, Pennsylvania
11,453 sq. ft. of floor area
Eight 24' x 36' classrooms
Architect:
Joseph F. Bontempo & Associates
Engineers:
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Elementary School
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25,084 square feet floor area
Twelve classrooms
Architect: B. J. McCandless
General Contractor:
Carcaise Construction Co.
New Brighton, Pa.





this way. . . There is not another group of people to whom our citizens have better reason to bow down than to the people in our schools."

The Simpler the Better

In a keynote address before the second general session and later at a section meeting on office management, Allan H. Mogensen, director of the Work Simplification Conference, Lake Placid, N.Y., laid down rules for handling people and simplifying work in school business.

"The current attitude, in all phases of business," he asserted, "can be summed up as one of A.T.H.W.I. — Aw, to hell with it!" He said the first thing the busi-

ness manager must do is to reconcile himself to the fact that rightly or wrongly the people on his staff are the people with whom he must work. "We must start from where we *are*, not from where we'd like to be," he stated. "True, a manager's job is to plan, organize, coordinate, direct, control and motivate. But his greatest job is to improve. And to improve, you can't start on assumptions. You need facts. You must start by improving what you have to be improved.

"We used to use fear, force and authority to get people to do the things we wanted. Now we have switched to persuasion, rewards and satisfaction. They are superior to old methods, but are not

complete answers," said Mr. Mogensen. The real solution, he suggested, will come only through an "organized application of common sense."

John Fisher called attention to "the greatest story in the world today": the daily demonstration of how a great power and a small nation, the United States and Canada, can face each other across an international border as "great neighbors." Referring to the standing ovation given by A.S.B.O. members to their president, Percy M. Muir, and his wife Muriel, both citizens of Canada, the executive director of the Canadian Tourist Association declared: "You have stood for a man of another country without thinking of him as a man from another country. Wouldn't it be wonderful if the peoples of the whole world would associate on a Percy and Muriel basis?"

Honors Bestowed

Recognition for services to the association came in various forms to the following persons:

1. Honorary life memberships to three past presidents of the association: Hubert L. Mills (1928), Thomas W. Clift (1951), and Ed. P. Williams (1952), the first two in absentia.

2. Life memberships to Elliott C. "Jack" Spratt, chairman of the A.S.B.O. exhibitors committee for many conventions, but absent because of illness this year; and to William M. Millican Jr., this year's exhibitors chairman.

3. Immediate past president's plaque to J. Harold Husband.

4. Inscribed watches to President Muir and Mrs. Muir.

5. A formal resolution of appreciation to Executive Secretary Charles W. Foster for his efficient administration of the organization's affairs and the Evanston office.

Research, Publishing

Announcements were made regarding the following publication projects of A.S.B.O.:

1. Just released: A.S.B.O. Research Bulletin No. 19 (1959), titled "Fringe Benefits for Classified Employees in Cities of 100,000 Population or Greater."

2. Ready for distribution: "Checklist for Economies in Pupil Transportation," an 11 page study.

3. Scheduled for next year: "Techniques and Methods of Conducting a Wage and Salary Survey," a 20 page brochure; the updated history of the association, in the making for three years; the report of the special committee on "responsibilities and qualifications of the business manager."

4. Future: Subcommittees to begin the work of compiling an international purchasing guide and to report at next year's convention; the insurance management committee to "follow through" on re-



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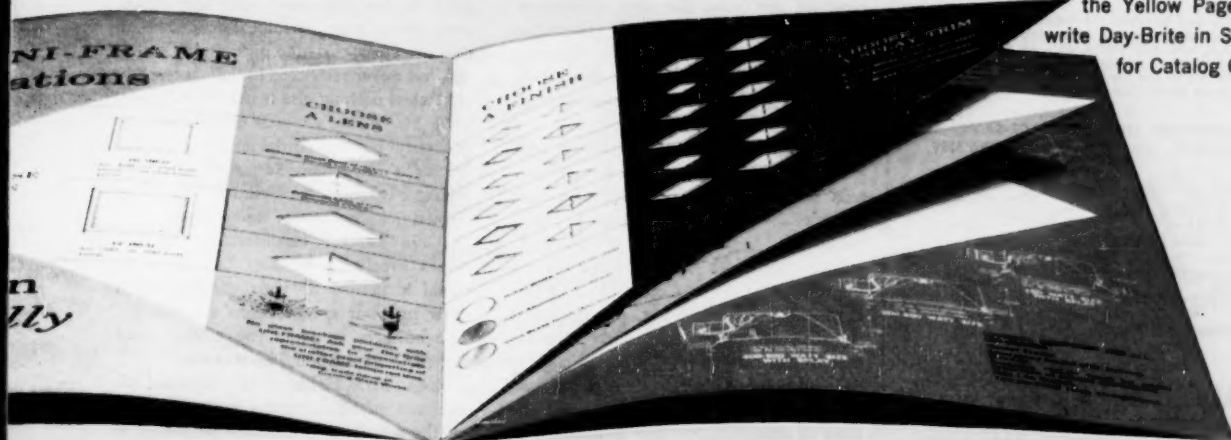
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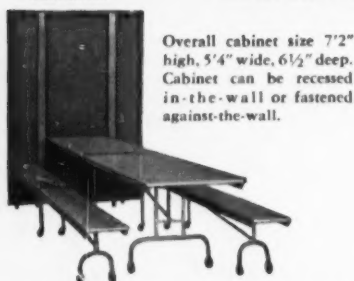
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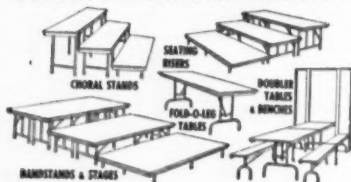


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search previously conducted in this field. The Three E's probably will supersede the Four B's at the 1960 golden anniversary convention, President-Elect G. Alvin Wilson told The Nation's Schools following this year's meetings. Mr. Wilson said that for the St. Louis conclave he has suggested the theme: Education, Economics, and Ethics in School Business Administration.

Next year's meetings, Mr. Wilson anticipates, will have less of the glamorous overtones of the Miami Beach setting. More of the program possibly will be developed around self-education. Talks in a greater degree are expected to be made by the association's own members "who after all are likely to know more about the field of school business management than most outside speakers, interesting as the latter usually are." There will, however, be a "big name" keynoter, preferably from the convention city area, possibly Harry S. Truman.

The 1960 president counsels business officials against becoming lost in details. Some school offices, he fears, have gone "paper work crazy." Filing, especially, should be simplified, a good guide being: When something goes into the file, something else should come out.

Need Competent School Officials

Mr. Wilson foresees that with the growing mass of business problems, accented by continuing school consolidations, there will be a need for more competent school business officials. Superintendents in larger numbers will "cease to knock themselves out by attempting to shoulder all the added duties themselves."

Mr. Wilson has no doubt that with the steady gain in the number of persons entering the school business administration field A.S.B.O. will continue to experience a steady growth in membership. He "certainly hopes" that with the increase in numbers there will be a concomitant increase in the quality of membership, but does not think that to achieve competence a separate degree in business administration is always necessary. At any rate, the new association prexy does not believe that his organization will set up academic membership qualifications comparable to those laid down by the American Association of School Administrators.

As to the format of the training program desirable for the future school business manager, the 1960 chief executive stresses the need to develop a broad background in the problems of school administration, with special emphasis on the tools of business. Courses in accounting, school law, building, planning and statistics will prove particularly valuable he maintains.

In addition to electing G. Alvin Wilson president, the convention approved the slate of other officers and directors pre-

sented by Andrew C. Hutson Jr., chairman of the nominating committee and 1957 president of A.S.B.O. The new lineup, effective January 1, is as follows:

President-elect, Herschel S. Brannen, Houston, former vice president; vice president, Joseph P. McElligott, San Francisco, former director; new director, Herman C. Bleckschmidt, St. Louis, and reelected director, Frederick W. Hill, Minneapolis. President Muir will serve as executive committeeman.

Continuing on the board are: Everett Zabriskie, Nutley, N.J., and Gray N. Taylor, Syracuse, N.Y. Charles W. Foster continues as treasurer, executive secretary, and editor.

Providing Leadership

After confessing his belief that, underneath it all, it is really the gabfest and the literature handed out that make conventions profitable, E. B. Sessions of the college of education, Ohio State University in Columbus, told the section meeting on maintenance and operations that an attitude of wanting to be helped must be instilled in the individual school employee. "This is difficult to do because in many cases the noncertified employee is rather a self-centered individual. He's been on his job a long time and has the answers."

In listing do's and don'ts, he said that school districts (not the employees) should pay for any inservice training program; class periods should be short and snappy. ("These people are not accustomed to sitting in a classroom.") Specific subjects should be discussed with emphasis on practice, not theory. "A feeling of equality must always prevail," he said. "Nothing is more disturbing to a non-certified school employee than being talked down to."

Reganam Ssenisub

Selecting a business manager is like buying equipment, said Robert Fisher, personnel director for the Personnel Commission of Los Angeles city schools. Don't buy equipment that becomes obsolete before the final payment is made; don't be too impressed with low initial cost; write your specifications so that they are clear, closed to undesirable material, but never restricted to only one product unless nothing else is available. These were Mr. Fisher's words of guidance in not only buying equipment but in selecting a "Reganam Ssenisub" (business manager spelled backwards), which he termed an "enormous investment."

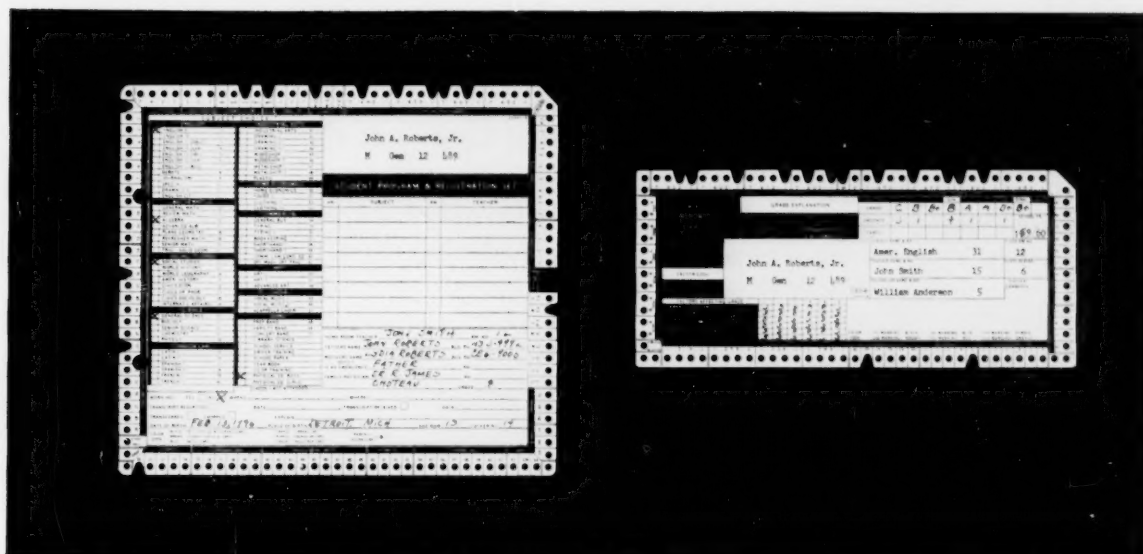
"Give careful consideration to the duties involved; consider the organizational structure of your district. Then draw up your specifications accordingly. The business manager you engage must fit your organization," he stated.

Both Mr. Fisher and Herschel S. Brannen, who chaired the section meeting on the selection of business personnel at

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which Mr. Fisher spoke, said that they did not care if the business manager received his training, either formal or practical, in the field of education ("up from the ranks") or in industry. "What is important," remarked Dr. Brannen, "is what the man can do!"

To ensure the best candidate's being engaged, Mr. Fisher recommended a series of written tests that would cover general intelligence, provide an adequate sampling of the applicant's knowledge of the job to be performed, provide clues to his background and his knowledge of social and human relations. "But don't use a written test of personality," Mr. Fisher warned. "We know very little about what constitutes personality today, and we know very little about testing it outside of the clinical situation." Mr. Fisher recommended oral interviews, but stressed the importance of using the combined judgment of several interviewers.

The salary of the school business manager, he said, should be comparable to local industry. "This is the only way in which we can assure ourselves of finding men who are of the caliber we need," he asserted.

Boards' Great Expectations

John H. Burkhart, M.D., president of the board of education in Knoxville, Tenn., told the school people what boards of education expect of their business managers. He expressed his belief in the absolute necessity for a large school system to have in its employ a man trained in the fundamentals of business procedure and designated as the business manager. After stating that it was not his purpose to discuss the relative merits and demerits of the unit control system as opposed to the dual control system, Dr. Burkhart went on to do just that. "I suppose," he said, "there are those rare individuals who are well enough versed in the principles of educational matters and financial matters to serve in the dual role of superintendent-business manager, but this is not a likely combination of interest."

Dr. Burkhart warned business managers against "carelessness rather than dishonesty" as the cause for the loss of money to school systems. The failure to take advantage of cash discounts or better prices obtained through volume buying can result, he charged, in money being lost that could be used in other ways.

In his introductory remarks as discussion leader in the section meeting on student activity accounting, George G. Tankard Jr., specialist for educational records and reports, U.S. Office of Education, estimated that a billion dollars or more is being spent every year for school activities. He described a new handbook, "Financial Accounting for School Activities," produced in cooperation with the Office of Education and the A.S.B.O., which is to serve as "a guide

for student activity accounting throughout the United States."

Illustrating how diligently he had worked on his address to the section meeting on school food service management, John N. Perryman, executive secretary of the American School Food Service Association, came up with the "A.L.S.O." of school lunch. "What are school lunch managers in addition to those who prepare food?" he asked. Answering his own question, he said they were "Architects of the Anatomy, Leaders of Learning, Sources of Survival, and, as they try to communicate with their own communities as to the real meaning of the program in which they function, they are, hopefully, also Operators of Opinion."

The Old Hard Sell

Lamenting the fact that death and taxes do not come in that order, Gray N. Taylor, now assistant superintendent in charge of business affairs, Syracuse, N.Y., said that death is often painless as opposed to taxes, and a further difference is that death doesn't get worse every time Congress meets.

"It is unrealistic," he said, "for us to assume that the school budget is assured of automatic support, that it does not have to be sold and explained, especially today when we are faced with a hard sell market." One solution he offered was "an audio-visual presentation of your budget" to the public. "It's time that we made full use of what the advertiser has known for many years: that the seller needs to appeal to as many senses as possible in putting a product before the public," said Mr. Taylor.

Start long in advance, he said, "and shoot pictures, more and more and more pictures. You'll only use a small percentage of your shots but you need many from which to choose. Look carefully over your charts, graphs and tables." He advised school budget makers to shoot some of the maintenance work being done. These shots, he said, can well be of the before and after variety. "Be on the alert for unusual classroom or total school activities. You see, you can't wait until just before you want to present the budget." And, for the benefit of the Missourians, he proceeded to show the slides and read the script used in his hard sell of the school budget in Schenectady, N.Y., where he was located until December 1.

The Great Sacrifice

"Educational planning is the weakest link in present-day efforts to obtain quality in school plants." This assertion was made by N. L. George, assistant superintendent, Oklahoma City public schools, in speaking at a section meeting on schoolhouse planning and construction.

In outlining a method of evaluating quality in school plants, Dr. George said

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many school administrators have been so busy trying to obtain quantity, or space, that they have often sacrificed quality. "Good planning engenders good quality; poor or no planning practically foment the school plant of low quality," he said.

He defended the right of the local school authority to determine quality in its school plants, saying that each community should keep a balanced program of quality in buildings and furnishings.

Must Want To Do It

"Somebody with the responsibility and necessary authority must want to put the new property accounting handbook into practice. If you happen to be that somebody, in all probability you won't come to the point of wanting to put the handbook into use unless you find answers to some of your important problems," announced Paul L. Reason, specialist with Educational Records and Reports, U.S.-O.E., in speaking to a section meeting on accounting and finance. He said the new handbook, just printed as "U.S. Office of Education Bulletin 1959," No. 22, will go a long way toward achieving comparable data on a national level.

"Over the years," Dr. Reason said, "there have been no commonly agreed upon standards to serve as guides for determining and defining the educational data obtained from the thousands of school districts in the several states." He showed the need for comparable data by pointing out that if school districts are to be able to make comparisons among themselves, if summaries, which are compiled at state and national levels, are to have any meaning at all, and if an individual school district or state or other unit is interested in making comparisons, it is necessary and vital to have such data.

Insurance Costs Too Much

Schools are paying too much for insurance, charged Ralph L. Muller, assistant superintendent from Muskegon, Mich., in an address before the section meeting on insurance management. Paid losses to schools, he said, are far less in ratio to premiums paid than the approximate 50 per cent ratio which is common to the insurance industry. He based his remark on a compilation of data from the years 1947 through 1957, in which he said paid losses on schools amounted to 34.02 per cent of the premium.

During the 10 school years, 1947-48 to 1956-57, the per capita loss (school membership) averaged 35 cents per child while premium costs amounted to \$1.08 per child. As a possible solution he outlined the "Michigan Public School Security fund," a plan proposed by the insurance committee of the Michigan Association of School Business Officials. Briefly, its concepts differ from the usual insurance program in that it proposes to restore or completely replace a disaster loss

with a modern facility, rather than to reimburse for a monetary loss based on the value of a building at a given time.

Here is the plan outlined by Mr. Muller: An annual levy of one dollar per membership child is made in each district. Reserve accumulates until it equals three dollars per child, after which the annual levy is only that necessary to maintain the reserve. Catastrophe insurance is to be purchased by the fund to provide for any unusual catastrophe loss. Loss settlements provide for 100 per cent replacement of buildings and equipment with \$100 deductible.

Mr. Muller admitted that the plan has met with some opposition in Michigan and that it has been termed socialist, subject to political manipulation, and insecure. "The unusual features," he said, "appear to be beyond the conception of many persons who are steeped in the concepts of the prevailing insurance programs, but there are many who see merit in the proposal."

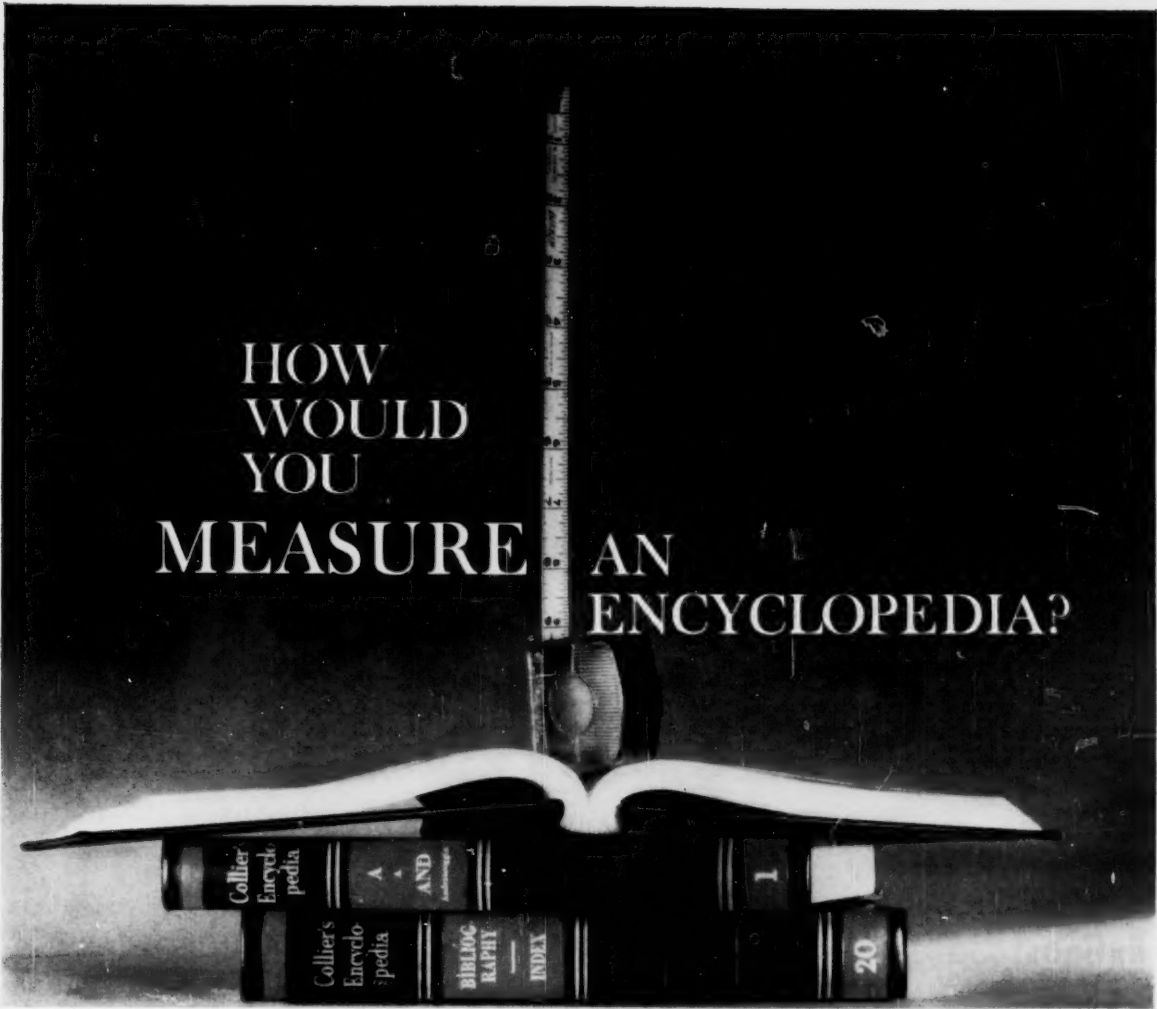
Favors Uniform Tax Measure

During the course of his address before a section meeting on accounting and finance, Edgar L. Morphet, professor of education at U.C.L.A., maintained that financing should assure reasonable equity for all taxpayers. This means, he said, that assessments should be uniform or some valid means of measuring local taxpaying ability should be devised and used. He advocated a plan of financial support for schools in each state, designed to assure a foundation program providing "essential, reasonably adequate, and well rounded educational opportunities for all who should benefit from public education." He said the foundation program should be cooperatively developed by representative citizens who have a genuine concern for public education.

Dr. Morphet suggested that there be some plan for assuring leadership and sponsorship of needed studies and analyses. Leadership should come from both educators and laymen, he suggested.

In the same section, Erick L. Lindman, chairman of the department of education at George Peabody College for Teachers in Nashville, Tenn., presented the case for increased federal school support. He pointed out that federal action has always reflected the needs and problems and conditions of the time. He said that today, when national security depends upon the effectiveness of schools, the federal government is a significant beneficiary of education. "Under these new conditions, Congress cannot disclaim responsibility if the states fail to provide sufficient funds to finance the kind of education our nation needs."

Opponents of increased federal support for education, he said, find themselves defending statements like this: Improvements in the quality of education



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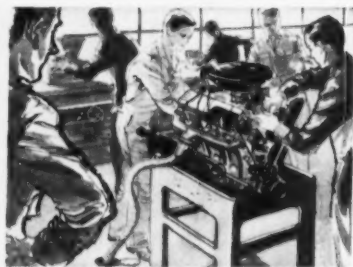


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are not urgent at this time; needed improvements will be achieved without substantial increases in the school tax rates; all states and localities can be depended upon to make the necessary substantial increases in school tax rates promptly. He said none of these three statements can be supported by past experience.

Dr. Lindman did not recommend specific legislation. He spoke strongly in favor of the plan of Beardsley Ruml, advanced in 1955 at the A.A.S.A. convention in Cleveland. Mr. Ruml suggested a broad program of federal support for public schools, recommending that the federal government start by paying annually to all states \$20 per school child and increasing the rate until it ultimately reached \$80 per child annually.

Safety First

In presenting the school businessmen with 400 recommendations for a fire safe school, William M. Swisher, supervisor, construction and maintenance, Phoenix Union High Schools and College System, stressed the fact that these recommendations were to serve as a guide only. "There are many more items that can be added," he said. "Fire safety is a never ending job; a constant vigil must be maintained by all school employees, including the teachers. A planned fire safety program is essential."

Mr. Swisher's 400 recommendations went up and down the line from alarm systems, fire drills, inspections, fire equipment and electrical precautions to panic control. He stressed the need for cooperation with the local fire department, and recommended the appointment of a "fire marshal" in each school, one who would instruct faculty members on the use of various types of fire extinguishers.

"Custodial scheduling is one means of 'stretching' the budget to get the most out of the tax dollar," said Robert L. Lorette, professor of education, State University College of Education in Albany, N.Y. He urged those attending the section meeting on maintenance and operation to find the most efficient method of scheduling, and spoke of a "philosophy of cleaning."

Other subjects considered at section meetings included the following: wages, salaries and fringe benefits of noncertified employees, increasing local financial support, controlling school funds, and step-by-step procedures required of states to qualify for federal funds until Title X of the N.D.E.A. (improving and speeding up distribution of educational statistics).

Additional matters discussed were: economies in school transportation and money saving angles in vehicle replacement and repair, variations by states in school liability insurance, and building good maintenance into new school facilities. Food service management sections had a "think through" on problems in this area, received suggestions for centraliz-

ing the school lunch program, heard a report on work injuries of school lunchroom personnel based on U.S. Department of Labor studies. A full review of the Los Angeles fire tests, reported elsewhere in this magazine, was presented by several speakers.

One of the sessions with particularly high attendance was the panel discussion on the role of the school business administrator. Participants were executives of school administration organizations.

Jack Childress, a past president of the National Conference of Professors of Educational Administration, reported that most colleges and universities do not have a formalized program preparing for the field of school business management. This void is due in part, Dr. Childress declared, to the failure of practitioners and their associations to agree on just what the instruction should do. The best courses of this type, he believes, utilize the total university facilities and personnel, rather than only those of the school of education.

Finis E. Engleman, executive secretary of the American Association of School Administrators, said the school business official can be almost the right and left arms of the chief school administrator, then added: "But he can never be the force that controls the decisions on educational matters, and decisions on finance are always related to educational program success or failure."

William A. Shannon, executive director of the National School Boards Association, said that most school boards don't know what to expect of their financial officers because no job specifications have been set up. He then proceeded to list nine responsibilities for a business manager of a K-12 district with 1000 students. The efficient business official saves his salary many times over, Mr. Shannon said.

Membership at New High

Unaudited figures at the close of the convention indicated an association membership of 2700, a slight gain over the official record figure of 2690 on Dec. 31, 1958.

The Miami Beach registration total of 2231 marked the 1959 convention the third to the largest in association history, being exceeded by last year's New York City meeting total of 2469, and by the 1957 meeting in New Orleans when the total was 2305. A check of attendance by board members indicated that attendance was nearer 2500, the drop in registration figures this year being attributable to failure of a larger percentage of non-member groups to have their presence noted officially. Active membership registration was 950; associate, 37, and school board, a new high of 232. Included in the total registration were 707 women, high except for the New York City convention. ■



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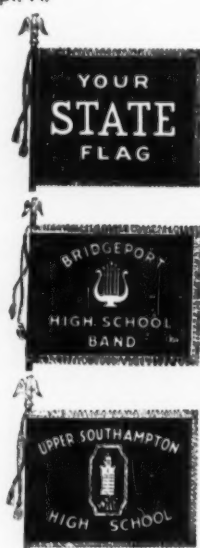
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Quality for Rural Schools

(Continued From Page 80)

shouldn't try. Real and rich contributions come from all the cultures of the world.

"People are stronger than things" was his second point. "America is slipping away because she has begun equating richness and power and even reason for being, with highways, skyscrapers and two or three cars in every garage. For want of a goal, we are sinking beneath our own abundance.

"Finally, people can be strong only with ideas — not things. God knows we need more good scientists and more good engineers, and we can produce them, but we would only be digging our own national grave if we made everybody into one of these profiles.

"The struggle is for ideas, ideas that will excite men's minds. This is hand-made for America, if we will recognize it before it is too late.

"You don't generate ideas in a scientific laboratory, not very many. You don't generate ideas on a military parade ground. You build ideas in people — in the public forum, in the P.T.A., in a convention like this, in a history class, in a philosophy class. These are the spots where we can plumb the depths of our greater potential if we are going to fire the imagination of the world."

Minority View

A Kansan, too, had been to the Soviet Union, but he came back complacent. Clifton B. Huff, head of the department of rural education and community service at Kansas State Teachers College, Emporia, proclaimed in a symposium on the pursuit of excellence in the classroom:

"Take it from a Kansas farm boy — there is not a single thing in Russian education we can see or we can use. We have the best education in the world, but we will continue to improve it."

Dr. Hansen, director of the school of education at Western State College of Colorado, talked on "The Anatomy of Quality." He has been humbled in his belief in the supremacy of American education, he said, during a seminar in the social foundations of education that he is presently conducting at the University of California while on sabbatical leave. From 30 high school teachers from all over the world, he is learning much about excellence in education. (Cont. on p. 108)

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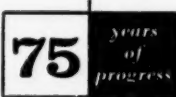
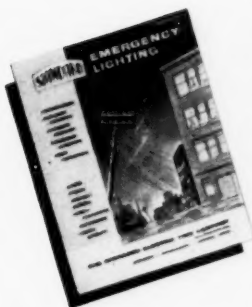
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"Size isn't the crucial factor in quality education," Dr. Hansen declared. "Very small high schools and very large high schools can produce educational excellence, current studies show."

"Content is not the key to quality. Some say, just put more phonics in the reading program and Johnny will forthwith learn to read."

"Scope isn't the answer. To provide special schools for bright students, to eliminate all vocational subjects, to cut out the 'frills' won't provide quality."

"Some of these factors may improve quality; some may have nothing to do

with quality; some may result in quality deterioration.

"In a popular woman's magazine, a school critic suggests that we 'get rid of the zeros, throw out the lunkheads.' Where will they go: to the street, the beer joint, the reformatory, or where?"

"This is the day of the single formula, the quick answer, the uncomplicated solution. If your school system is poor, increase the budget, fire the administrator, hire another coordinator, or appoint a committee, take a vote, conduct a survey, let the majority rule.

"The important question we must ask is: What are the ultimate values we seek for the communities and the children we serve? We must look into our own selves to find the concept of an educational design to which we can give allegiance. We must have the wisdom to understand and to believe what we find in our own hearts — if we want to know what quality in education really is."

Douglas MacRae, assistant superintendent of Fulton County schools, Atlanta, Ga., told his audience that education is "killing off like flies" all the occupations requiring a low level of literacy. So the schools must undergird students for higher skills.

"Ignore Pressure Groups"

"Stop listening to pressure groups," Supt. John Mongon of Willingboro Township Schools, Levittown, N.J., warned the administrators. "Find out what the people think who don't come out to meetings. Sit down with such people and reassess school goals."

"Decide whether we should send the intellectually unwashed into outer darkness. Or decide whether we shall retain the individual state constitution and legislative provisions that guarantee free public education for all the ages 5 to 20."

Justice Matthew W. Hill of the Washington supreme court advised the school people to use the pronoun "we" not as a term of exclusion: we, the Democrats; we, the Protestants; we, the Rotarians; we, Labor. Make it a term of inclusion, rather.

"First be able to say 'I' with a nice balance between humility and responsibility. Pronounce 'he,' 'she,' and 'they' with understanding and concern, and be sure that God is a part of 'we.'"

Although overemphasis on science was decried, most discussion groups pointed up the need for inservice training of science and classroom teachers in atomic science both at the elementary and secondary levels. In the space age, it was pointed out, "the fairy tales of yesterday are the realities of today," and science teaching becomes almost a creative art.

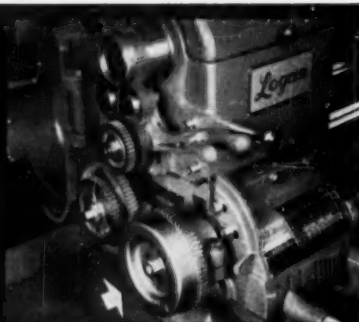
The last* of the yearbooks of the Department of Rural Education, "Vocational Education for Rural America," came in for discussion. Some striking points made by this study, done in cooperation with the American Vocational Association, are: (P. 110)

*Yearbooks in rural education are being abandoned in favor of more frequent survey reports.

new safety feature!

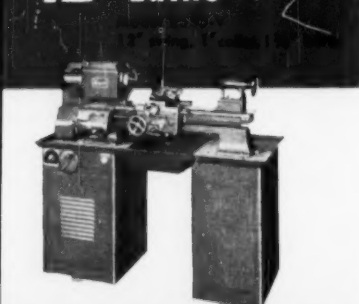
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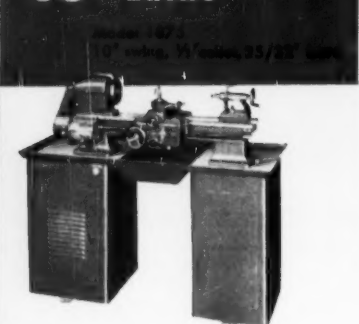


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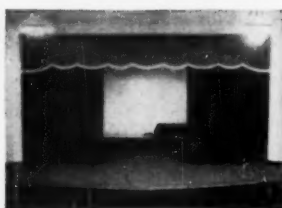


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"Effective vocational education must be provided largely after full-time schooling is over — for persons already engaged in occupations. . . . Public school buildings must be planned for the use of adults as well as children. . . . Area or regional vocational schools, with cooperative arrangements among districts, is a current development. . . . Farm youngsters must be counseled and trained in occupations other than farming, as from one-half to three-fourths of them will take up other occupations outside the community in which they grew up."

New Officers Take Over

At the close of the meetings, William E. Bishop, superintendent of schools at Englewood, Colo., succeeded Velma Linford, state superintendent of public instruction for Wyoming, as president of the Rural Education Department. Winston Brown, superintendent of Waukesha County schools, Waukesha, Wis., took over the gavel of the Division of County and Rural Area Superintendents from L. M. Dimmitt, superintendent of King County schools.

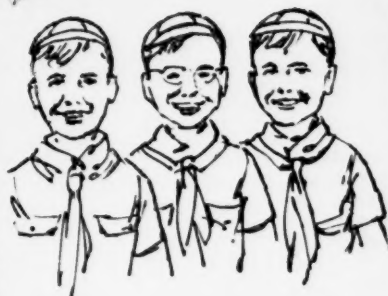
In his luncheon address at the close of the conferences, Supt. Brown declared: "We must cultivate creativity in children and help it grow and flourish in adults, for ours is a period of great transition."

"In a way, the early American was like a child. The pioneer looked forward to each new day. As he pushed back the frontier, he was constantly filled with wonder, with questions, and with daring. We must be pioneers again on the great frontier of new knowledge and understanding."

Cecil Hardesty, superintendent of San Diego County schools, is president-elect of the division, and Richard Van Hoose, superintendent of Jefferson County schools, Louisville, Ky., was elected second vice president. The 1961 convention will be in Louisville.

In resolutions adopted, the Division of County and Rural Area Superintendents took a firmer stand on federal aid than in the past. It struck out at several compromise bills to the Murray-Metcalf measure that threaten state and local control of the curriculum and budget policies.

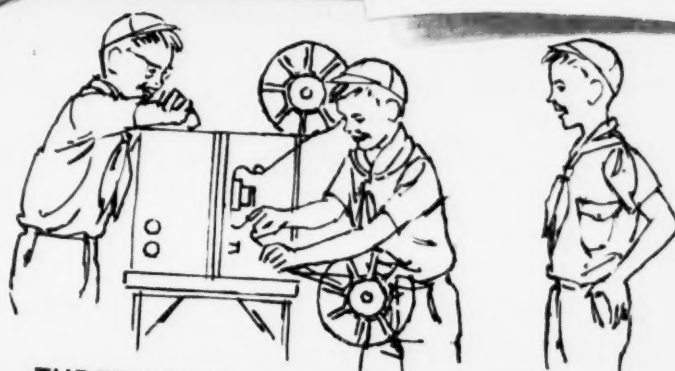
Both rural groups reiterated their demands that qualified county superintendents be appointed by elected school boards and called for strengthened support for the intermediate unit.



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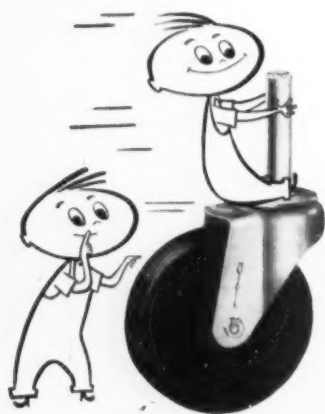


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Delinquent Behavior: Principles and Practices. A juvenile delinquent project, William C. Kvaraceus, director. National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D.C. Pp. 330. \$2.

This second volume of the N.E.A. study, the one with the action clauses, may be labeled disappointing, but only by those who were looking for a remedy guaranteed to cure and prevent delinquency in one swift application or your money back. It could also be disappointing to those who read a few lines and exclaim, "Why, this is only rugged common sense," as if there were anything very common about that commodity.

The rest of us will be happy. For in this treatise, organized by Dr. Kvaraceus and William E. Ulrich out of the findings of six specialists and more than 500 workers and thinkers in the field of human behavior, there is excellent substance and resource material, along with the implied conclusion that the resources must often be our own.

The introductory chapter is a superb review of the first volume, "Culture and the Individual." Some of the things said there are even more clearly repeated here; things to remind us that the study is centered in the big big cities, and that we must be aware of the cultural patterns of the pavements, differences in community attitudes, limitations in the coping powers of the schools, and the lag between theory and practice.

Each of the succeeding chapters deals with a special aspect of help for the norm-violating youngster. Each has a brief discussion of principles, a short set of specific guidelines heavily asterisked, and coast to coast reports of successful or hopeful programs.

Identification of the Predelinquent. Identify the bent twig early, while there is still chance to unbend him a bit. But be careful that no youngster is labeled into accepting and fulfilling a delinquent role. Obvious trips to the psychologist or the caseworker stamp him among his fellows as either a "nut" or a "ratter."

For study and referral purposes, teachers and caseworkers must record a vast amount of personal, family and school data, including long stretches of anecdotal evidence. The record should give an indication of probable cause; whether

ON THE SHELF

with James M. Spinning

the difficulty seems to lie within the cultural background, the family situation, or the individual psyche.

Right here the man who has read the October 12 issue of "Time" says, "Hold on! The properly respected Glueck team has constructed impressive prediction tables that pinpoint the predelinquent 90 per cent for sure. All you have to do is check on the degree to which five decisive factors exist, all of them related to family life: father's discipline, mother's supervision, father's affection toward his children, mother's affection, and family cohesiveness. Then just by altering even two of the factors you can reduce the chances

Christmas Wish

A Baby in a manger —
And only God could see
The valiant, the forgiving Christ
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Strong . . . to learn, to suffer,
Strong . . . man's woes to bear;
To help, to lift, to face the world,
To teach that world to share.

All babies in all cradles,
May you grow up to know
That valiant and compassionate
All men were meant to grow.

Our hearts leap up at Christmas,
Our faith is born anew
That the promise of the Christ Child
Shall be fulfilled in you.

All teachers in all schoolrooms,
All you who know the goals,
Make courage and compassion
First for growing souls.

James M. Spinning

of delinquency from nine to six out of 10. So the remedy is out of the school area entirely."

But let's read that report more carefully. It also says that to head off delinquency "the best efforts of school, church or social worker must be extraordinary." Suppose all these efforts fail to modify family relationships. The problem is still there and sitting more heavily than ever in our laps. It is just as well that the book shows how the schools can best deal with pupils, parents and other community agencies.

(Cont. on p. 114)



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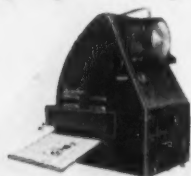


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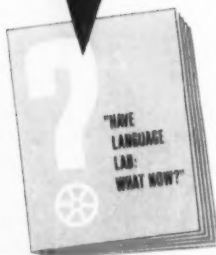


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We have come a long way in facing up. I am old enough to remember the days when 14 was the legal school leaving age and when faculties congratulated themselves that a problem had been solved the minute a "trouble-maker" was expelled. It was only occasionally that anyone said, "No, not solved. Just passed along."

The conviction that "something must be done" about the delinquents is heightened by two startling pieces of testimony. The U. S. Public Health Service finds an increasingly heavy incidence of venereal disease in girls of ages 11 and 12. Whereupon the report argues that sex instruction must be given much earlier in the grades than most have thought necessary or wise. It remarks that this is no easy task, especially with children from homes where the sex pattern is anything but salutary.

The International Association of Arson Investigators cites an alarming increase in deliberately set fires, 45 to 60 per cent of them involving juveniles from 12 to 18 years old. In 1958, for the first time, a great many of these fires were set by girls.

Classroom Help. In smaller communities the teacher is often the only agent outside the home and church who is equipped to help. No matter what the size of the community, the teacher is frequently the finest person the child has ever known, bringing him his first knowledge of what an intelligent, broad-minded, big-hearted adult can be, setting for him, perhaps, a pattern of excellence.

But watch out when a teacher dislikes a particular child. No one can help a person he dislikes. In such a case a switch of teachers is in order. For the boy who dwells in a female-run household, the school will do well to arrange some association with a male teacher.

Hopefully, the teacher will be a good listener. Probably the child already has had too much experience of adults who never listen. When the child is ready to "open up," an adult ear is therapy itself.

Special Classes. "Learning the learner" is part of curriculum making. Emphasis in the regular classroom on "academic prestige" may squeeze out the nonsubscribers. For the habitual norm-violator the special class is the most ready remedy and the best. "A problem child often is more cruelly segregated when kept in a regular class which cannot meet his needs and where he is doomed to failure and frustration."

The Reception Center of Los Angeles County provides good examples of a curriculum addressed to behavior deviates in such units as "doing what it is time to do," taking turns, not smart alecking, not defacing property, and not swiping things.

Job oriented programs sell well in the special class, notably in Detroit's upgrad-

ing series with its detailed progress charts, Cincinnati's YES placement course, New-ark's summer earning plan, and Wash-ington's Odd Jobs Program with 25 centers, counseling service, and 3000 annual placements.


Integrated Special Services. Every large school system needs (and most of them have) and most small systems need (and few of them have) a battery of special personnel, psychologists, psychiatrists and psychiatric caseworkers, physicians and attendance staff, organized as teams to diagnose, advise about, and treat deviate children. They recognize, as we all should, that what is on a child's mind is frequently more important than what is in it, and may effectually prevent anything from getting in.

Even when the services fail to show any immediately visible improvement in children, New York City notes, there is value in psychotherapeutic first aid. It may hold the line until treatment or growing maturity can catch hold.

A Detroit report remarks that little lower class guys and dolls reject reading texts written around middle class ideals and sweet, ever obedient milk-and-water children. Reading matter should be of a type more acceptable to those who have to read it. Does this mean that we should go in for picaresque fiction and the exaltation of the whole lower class pattern? If I thought so, at least one of my eyebrows would be exalted, permanently. And I don't like milk and water either. I content myself at this point with plugging the Rochester Reading Series. It was written by special class teachers for slow readers and organized around simple vocational interests. The books are marketed by Syracuse University. Any incidental profits go not to the dedicated authors but to the help of handicapped pupils.

Working With the Family. It is too easy to dismiss the lower class parent with negative judgment. Yet he needs some feeling of acceptance and a real welcome to parent-school activity. Those from alien cultures may not know what is expected in America. They may be blocked by their own problems or their immaturity. Where there is no parent, or none functioning as such, the school is driven to finding a parent substitute figure, perhaps from its own staff.

In 1950 the mothers of 5 million (of the 16 million children under 5 years in this country) had no more than an elementary school education, if as much. Mothers of another 9 million had 1 to 4 years of high school. The mothers of the other 2 million had had some college. Is it any wonder that New York City reports that 46 per cent of the parents of norm-violators denied that any problem existed, or that 35 per cent had too many problems of their own to be concerned with those of their children? In 13 per



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cent of the cases there was no mother at all or one who was seriously ill. An Oregon study showed that 6 per cent of the families accounted for from 55 to 70 per cent of the case loads, with family patterns cascading down the generations.

I am surprised to find in this volume relatively little reference to parent education. From the reports that parent contact can often be achieved only when school workers are available after school hours, it is clear that parent education groups are hard to organize. But I'm thinking of classes in which high school boys and girls on the eve of school leaving can be taught something about handling the new generation. Perhaps their consciousness can be dented with the sometimes surprising idea that family life can be rich and satisfying and that there are ways to bring up kids to be happy and good citizens . . . and an obligation to make it so.

Let us say in effect: "Here's a list of things to be saved carefully until your first baby comes. It is not given you in criticism of your present family. But if you don't follow it with your children, it will be a criticism of you."

Working With Enforcement Agencies. "If the home and school err, it is often on the side of overprotection from legal agencies." Each step from warning to arrest to probation to suspended sentence

to commitment further fixes a youth's identification as a delinquent or a criminal. When a child is out of school as the result of court action, a plan should at once be set up looking toward his ultimate return.

Del Norte County, in California, has a program to show predelinquents how stupid and unprofitable crime is. Paroled prisoners are sometimes persuaded to appear and testify for virtue. In Pontiac, Mich., the juvenile court offers aid to groups working on delinquency problems. Any citizen of good repute may notify cases for investigation and follow-up to a joint citizens and school board committee. The children's bureau of Passaic, N.J., after noting that parents should understand that "doing for" and "giving to" are no substitutes for affection and acceptance, reports that 56 per cent of preferred delinquents do not repeat and another 18 per cent repeat only once, adding that only 5 per cent of adult offenders have ever been known to the bureau.

Take a look, too, at the work of the Boston Citizenship Training Group, which for two after-school hours each day holds briefing sessions on accepting responsibility for one's own acts. Attendance is compulsory, but after "graduation" nine out of 10 come back voluntarily for refresher visits. Observe that 69 per cent of these adjudged juvenile of-

fenders have marked reading disabilities . . . and check your remedial program.

Working With Other Community Agencies. Delinquency is everybody's business. The school can not go it alone. The last chapter cites report after report from places where the schools don't have to go it alone. There is the Illinois Youth Commission Project, which attempts to bring hope to devalued neighborhoods, replacing apathy with a desire to reach attainable goals; the antivandalism project, set up by four Chicago principals, which works with Scouts and Cubs and all other interested groups; the Hialeah student project to win back for teen-agers their good name; New York City's all-day neighborhood schools with seven additional teachers and a psychiatric social worker for each, and New York's Centurions, "a Christian gang."

The Centurions carry no switch knives or zip guns and they read the Bible. Forty per cent of the members have been on

HASTY CONFUSION

Gracie thought the ninth grade social studies text said "some awful things." But neither Gracie nor Mr. Spinning, who writes "On the Shelf," was so deluded as to ascribe to Clifton Fadiman "that book," as was said on page 102 of the November issue.

An assistant editor, coming to a hasty conclusion, inserted Fadiman's name in the copy, and the result was a hasty and lasting confusion among readers. The hasty ass't. ed. is now repenting, but not "at leisure," as both the editor and, we trust, Mr. Spinning have forgiving hearts.

No apologies necessary to Mr. Fadiman! If he had written the social studies text, Gracie would have been charmed by those "awful things."

probation, but since joining none has been charged with an offense. Taught real boxing and judo, these lads are so tough they don't have to fight to prove it. In St. Paul, likewise, potentially dangerous groups have been infiltrated by members of the Roving Group Work Units and "corrupted into goodness."

Surely the reader must be impressed by the tremendous effort good, solid lay citizens are making all over the country to work wholeheartedly with each other and the schools to prevent and stem the tide of errancy. They will be helped by the N.E.A. study. It most valuably shares with them its good counsel and its reports of hopeful enterprises. The two volumes have had a good lay press.

Certainly this treasury of sound sense and tested experience belongs on the shelf of every school leader . . . but not until it is dog-eared with study. We can use it in our business, and in the Lord's. ■



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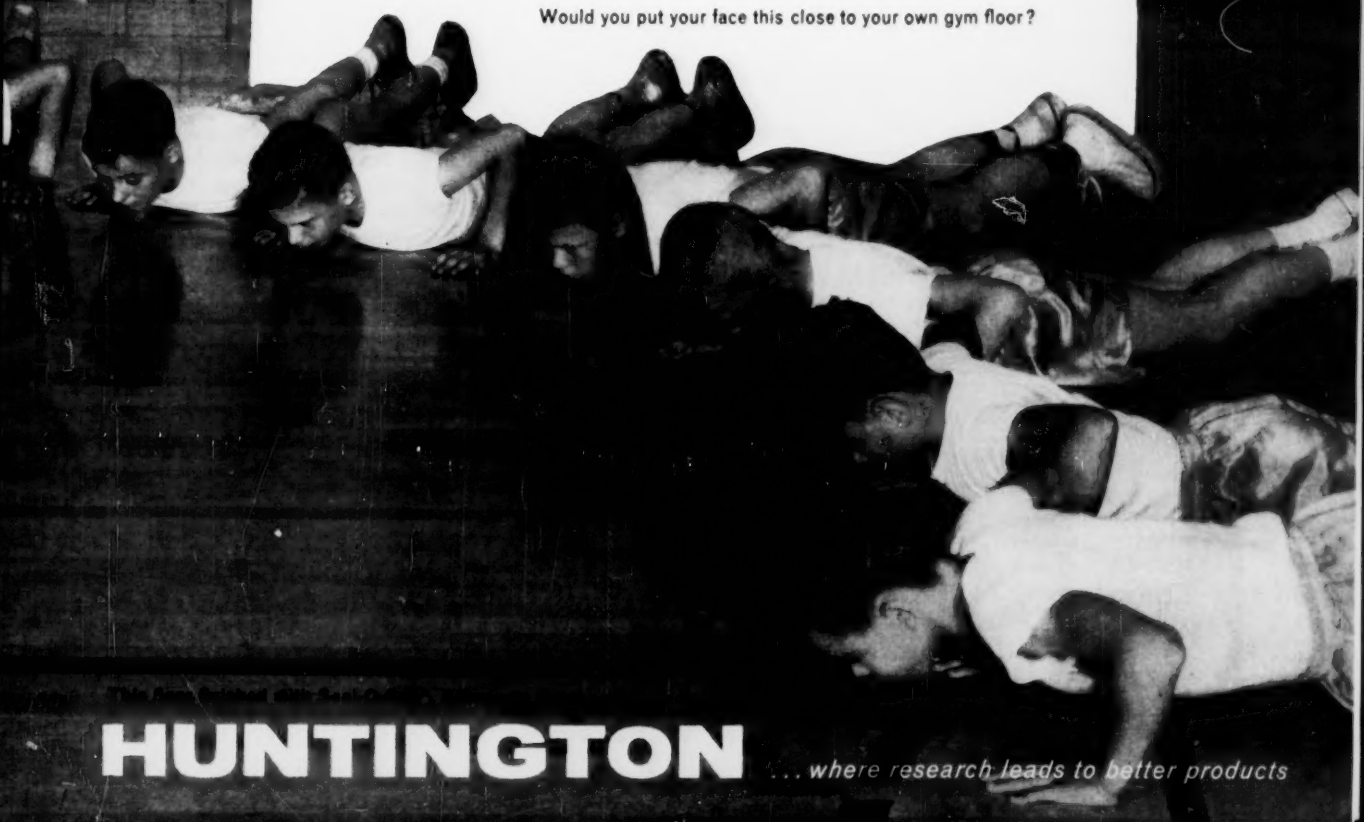
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Administrative Study

(Continued From Page 78)

also mentioned as requiring extra time. These reports suggest that school board members are diligent and generous of their time in activities that will help them formulate good policies for the conduct of the schools.

Of 573 board members reporting on whether they made formal contact with suppliers' salesmen, more than half said "rarely" or "never." Administrators reported differently on this question, with 76 per cent of the 912 respondents reporting "rarely" or "never" in regard to board contact with salesmen. In contrast, 95.5 per cent of administrators reporting said that they (or members of their staff) frequently or occasionally see suppliers' salesmen during the regular working day.

It may be seen from the answers to these questions that board members do not make it a practice to discuss products with salesmen, whereas this is a regular part of the job of the administrative office in the great majority of school districts.

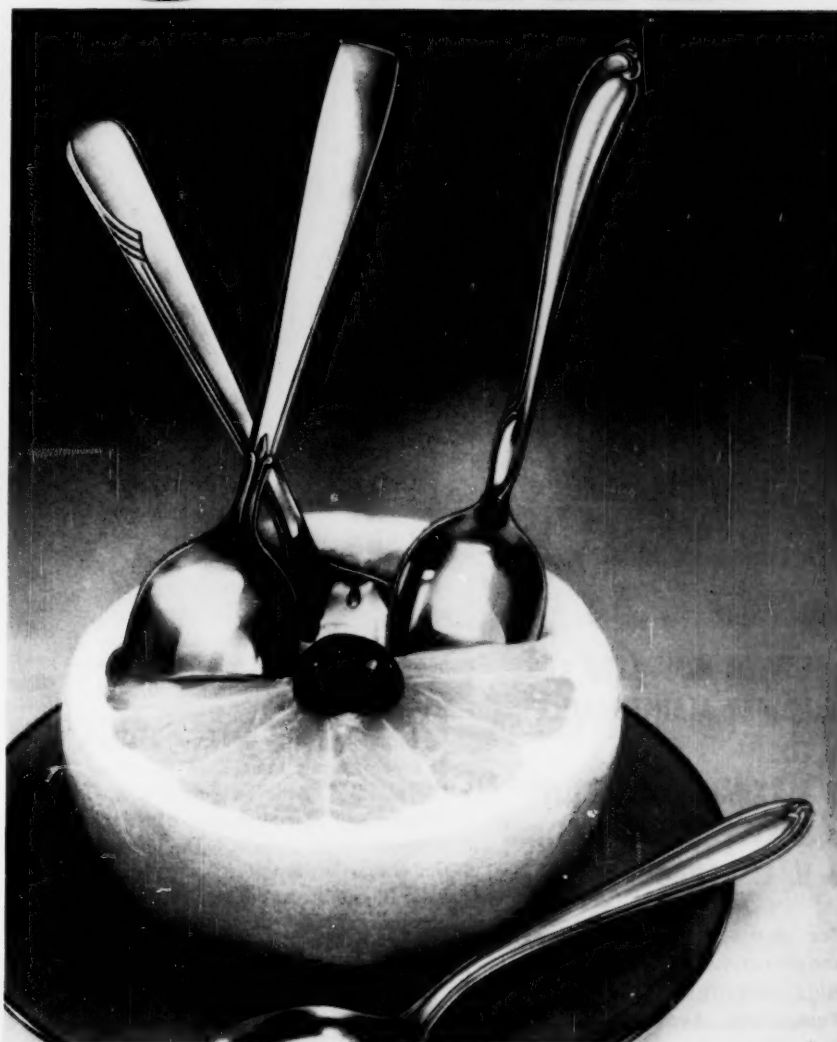
Administrators Select Products

In these studies, both board members and administrators were asked the question: "Who ordinarily selects and recommends for purchase the following items (by brand or make)?" The answers, shown in Table 3 indicates that the administrator is the dominant influence in the selection of most products. Since the question allows a multiple choice and includes the architect, it will be seen that in most districts the function of product selection lies mainly with the school administrator.

Both studies were concerned primarily with the budgeting and purchasing part of the business management function, since it is in matters of product selection and allocation of funds that the lay board member could meddle disastrously if he attempted to make judgments without full understanding of the educational requirements that bear importantly on the suitability of equipment and materials.

These studies show that, in some school districts and in sharply varying degrees, some school board members do sometimes undertake to share in decisions that they may not be competent to make. On the other hand, such interference is, by far, the exception rather than the rule. ■

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Left to right: ACCENT * extra-heavy; VALOR * heavy; SHASTA * extra-heavy; PARADE * heavy; in foreground

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Report

from WASHINGTON

By EDGAR FULLER



WHITE HOUSE ENTRANCE

COMPROMISE for school construction bill hits usual snags. Mr. Bailey wants written commitment from President Eisenhower.

While Congress is in recess, negotiations are being held on a compromise school construction bill. A group of citizens, led by George J. Hecht of New York and Eric Johnston of Washington, are active in the movement, along with the Administration, members of Congress, and some educators.

Chances for agreement are dim. All the old differences on such tough issues as formulas for allocation and amount of federal funds remain. In addition, Cleveland M. Bailey, House subcommittee chairman, demands written assurances from President Eisenhower that he will support a compromise. Education organizations prefer broader approaches to the financial problem and will decide what position to take after the compromise proposal, if any, materializes.

DR. CONANT'S LATEST BOOK disappoints federal support protagonists. Former Harvard president opposes relevant legislation. Wants Congress "to cajole or coerce" the states for more funds.

Dr. James B. Conant has written another book on education, "The Child, the Parent, and the State." It follows several remarkable contributions, including "The American High School Today," published early in 1959. The earlier report dealt with the purposes and programs of American high schools, was based on extensive investigation, and made definite recommendations for stated reasons.

"The Child, the Parent and the State" enriches the themes of these earlier books, advises citizens wisely on school problems, and elaborates on the national and international importance of education. Then the author adds brief comments on local-state-federal financial and other administrative relationships in public education that seem to be less accurate or helpful than we have come to expect from him.

Dr. Conant believes that almost all states need massive financial assistance for public education. He places the additional funds needed at several billions of dollars annually, using most often an estimate of \$6.8.

Departing from his previous practice, however, Dr. Conant recommends no program. At a press conference on October 23, according to reliable reports, he denied that he was opposed to massive federal financing for schools. At the same time he opposed all relevant legislation now pending in Congress, and described no other legislation he would support.

This book raises so many vague doubts about each feasible course of federal action that the total effect appears to be opposition to any action. It leaves the impression that Dr. Conant is searching for new ideas, but that his true preference is "... to use in one way or another the power of Congress to cajole or coerce the states into putting their own financial houses in order..."

Dr. Conant comments that substantial federal support would mean "the opening of a new chapter in public education," and asserts that unless a large federal agency administers it in



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detail there will be irresponsible government. Few educational administrators will agree, and many believe such an increase in federal personnel would be undesirable. The state systems that distribute more than \$5 billion of state funds to local school districts each year could be used for federal funds also, but the book is silent on this possibility.

Educators will question many of Dr. Conant's approaches in this field. To illustrate, let us examine his reasons for opposing flat grant allocations to the states. First, he admits that flat grants would lessen federal controls,

which is desirable. Then he asserts that there are two "grave difficulties" in justifying such flat grants.

The first is that the flat grant "... largely ignores the truly desperate straits of the very poor states." Here Dr. Conant makes the mistake of emphasizing the educational needs of entire states instead of the relative needs of local school districts within each state. Nowhere does he recognize that federal funds granted on a flat grant basis to the states can be distributed on an equalized basis by the states to local school districts, and that differ-

ences in financial ability vary much less among states than among local districts within any state.

With federal allocations to the states on a flat grant basis, state distribution of federal funds to local school districts would favor the "very poor states" because their taxes would be less than one-third as much as if they were "cajoled or coerced" into levying the extra taxes on themselves as Dr. Conant suggests. Mississippi, for instance, would receive more than three times as much as it would pay into the federal treasury to accumulate the funds involved, and New York would pay twice as much in federal taxes as it would receive from its share of the grants. Opposition to flat grant allocations may be justified for small funds, but hardly for \$6.8 billion annually when the spread in financial capacity among the states is declining.

RICH STATES have poor districts, too. Equalization of federal support for schools can be done best by state plans.

The second difficulty noted by Dr. Conant is that flat grant allocations will tempt the richer states to indulge in state or local tax saving or, should Congress bar that, would force rich states to spend more on schools than necessary.

Assuming that there is a federal foundation program, as Dr. Conant does, there are enough relatively poor districts in the rich states to utilize large federal funds. If the portion not required by the foundation program results in slightly lower local school taxes in their richest districts, there would still be no net tax saving in any rich state. This is because a state such as New York, and especially its taxpayers in the richest school districts, will pay \$2 or more in federal taxes for each federal dollar they receive. Congress is not likely to deny some share of large-fund federal grants to the poor school districts in such states as California, Pennsylvania, New York, or Ohio that are in more serious need than the wealthier districts in Mississippi or Texas. Is it not fair to consider, as Congress must under any large-fund plan, where the money comes from to pay for it?

On these and comparable points, Dr. Conant creates his own dilemma. The states have established finance systems that promote equalization among local school districts in every state. Federal funds added to these



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systems would be equalized twice under any formula, moderately upon allocation to the states and then more vigorously upon allocation by the states to local districts. This equalizing effect is strongly inherent in the federal tax system under flat grant allocations, and the states would pinpoint the need by distribution of massive federal-state funds even on their present 58 per cent equalization and 42 per cent flat grant pattern.

Perhaps no citizen has contributed more as a spokesman for American education than Dr. Conant, or is held in higher regard generally. We hope he will examine state aid systems and their financial effects in local districts, and evaluate administration of current federal grant-in-aid programs for education. We believe these activities would lead him to a specific large-fund federal support program he could recommend without fear of federal control of education.

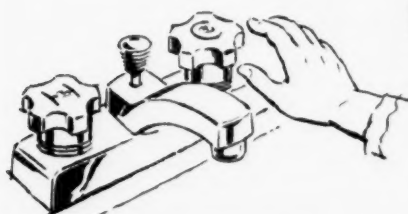
WOMEN REPRESENTATIVES of three nationwide education groups are "invited" to a meeting but not "admitted at New York club."

An important new organization in American education, seeking to achieve rapport with and support from major educational associations, recently invited them to send representatives to a meeting at the University Club on West 54th Street in New York City. Three days before the meeting, the executive officer of the American Council on Education's committee (for the field concerned) was notified that she would not be permitted to attend because women were not allowed in the club. Then the representative of the Council of Chief State School Officers discovered, quite accidentally, that she could not attend for the same reason. Both ladies stayed in Washington. But the representative of the National Education Association, also on the distaff side, did not have the advantage of advance information. That busy department head made the trip to New York and was turned away at the door of the club.

Need More Classrooms. Demands for classroom space will rise "at an astonishing rate" in the next 20 years, Robert C. Cook, president of the Population Reference Bureau, recently warned. City and suburban school planners were told that "planning must begin for a rapid expansion of the school population and must be in terms of each individual community, not in terms of national averages."



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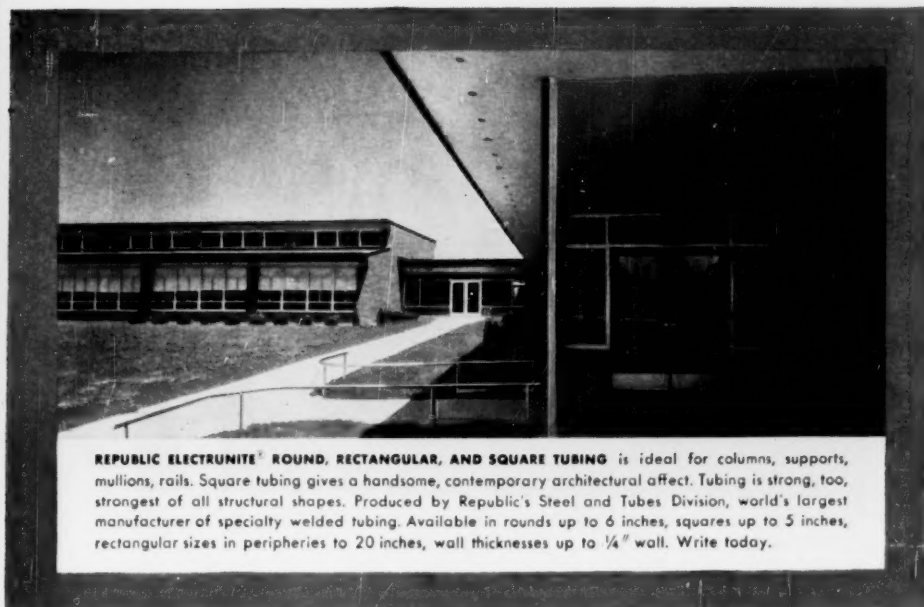
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NEWS IN REVIEW

ETV Courses Will Be Transmitted From Circling DC-7; Six States To Benefit From Experiment Next Fall

CHICAGO. — A "flying TV station" will broadcast instructional programs to schools in six midwestern states in an experiment to be conducted next fall. Announced recently at a news conference in the office of the Chicago Board of Education, the \$7 million project will be guided by the Midwest Council on Airborne Television Instruction.

Courses on video tape will be transmitted from ground based facilities at Purdue University to a circling DC-7, some 20,000 feet over the north central part of Indiana. The programs will be retelecast to the schools and colleges that choose to participate. Taught by outstanding teachers to be chosen from a talent search, the courses could reach 5 million students in parts of Illinois, Indiana, Kentucky, Michigan, Ohio and Wisconsin.

The experiment will begin with two conventional "wide-band" UHF transmitters aboard the aircraft, so that two programs may be televised at once. An unusual feature of the experiment will be the testing of "narrow band" telecasting on two special channels, which will carry the same programs as the conventional UHF channels. "Narrow band" telecasting has the potential of doubling the number of courses that could be carried over conventional channels.

The plane will fly six hours a day, telecasting 12 half-hour programs per chan-

nel. As the project develops after the first year of operation, the number of simultaneous telecasts might be raised to six, providing 72 lessons and offering a greater variety of courses. Estimated coverage will be a circle from 300 to 400 miles in diameter.

An application for an experimental license to conduct the project will be filed soon with the Federal Communications Commission by the Purdue Research Foundation.

The Midwest Council on Airborne Television Instruction will inaugurate the project and assist it through the initial stages. Working with superintendents, school boards and principals, it will organize the cooperative efforts among

schools to result in sustained support for the project and later determine the courses to be shown.

The midwestern educators believe the project is a major effort to break through
(Continued on Page 136)

Athletics Injure 7100 in Wisconsin

MADISON, WIS. — High school athletic programs resulted in injuries to 7100 students in Wisconsin in 1958-59, the state medical society has reported.

Football accounted for 3984 of the injuries, slightly more than 64 per cent of the total. Basketball accounted for 1184, wrestling 401, track 271, and baseball 194. The figures were based on insurance claims.

National Council on Schoolhouse Construction Considers Safety, Functional Planning and Its Own Destiny

KANSAS CITY, MO. — "Today, with so much depending on the wisdom of our leaders, education is responsible for the preservation of life itself," John L. Cameron told members of the National Council on Schoolhouse Construction, here October 6 to 9 for the 36th annual meeting.

The chief of the school housing section of the U.S. Office of Education added: "It is doubtful that any group has more influence than this council on the two most important issues in contemporary American education: (1) getting the most

for the school dollar, and (2) improving the quality of education."

If a school bus or an item of instructional equipment proves unsatisfactory, it can soon be replaced, Dr. Cameron observed. Even the influence of a poor teacher, to a large extent, can be overcome within a few years. But if a school building is poorly designed functionally or located improperly, "the school children of that community have to live with our mistakes, and the educational opportunities to which they are entitled are denied them."
(Cont. on p. 132)

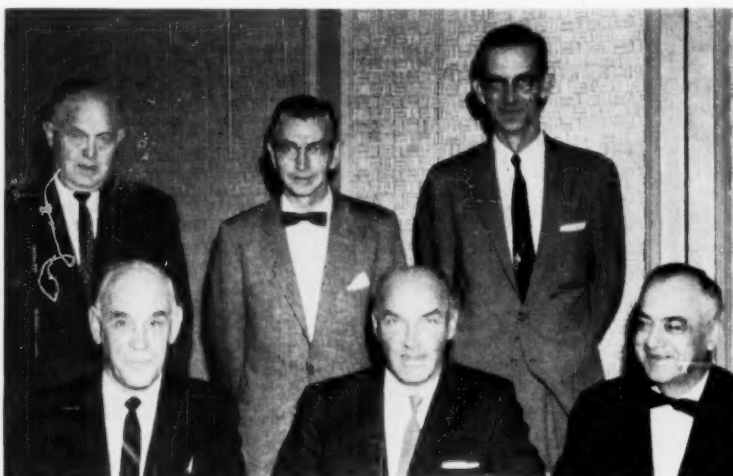
A.S.C.D. Conference Will Change Its Appearance

WASHINGTON, D.C. — "Social and cultural influences on education" has been chosen as the theme of the 15th annual conference of the Association for Supervision and Curriculum Development of the N.E.A. The conference will be held here March 6 to 10, 1960, with the Shoreham Hotel as headquarters and the Sheraton-Park Hotel as associate headquarters.

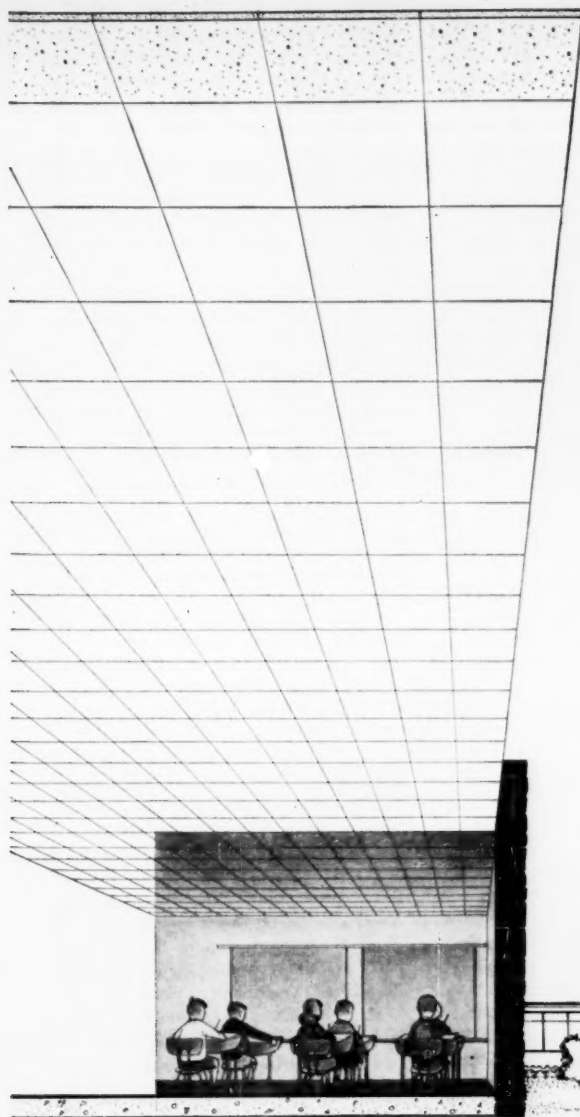
A new feature will be the Sunday arts-cultural evening with the Music Educators National Conference, the National Art Education Association, and U.S.O.E. specialists in these areas cooperating.

Another innovation for A.S.C.D. is the scheduling of area meetings. Six concurrent meetings will be held on the afternoon of the first full day, and these will provide a framework for discussion groups devoted to current and urgent curriculum problems.

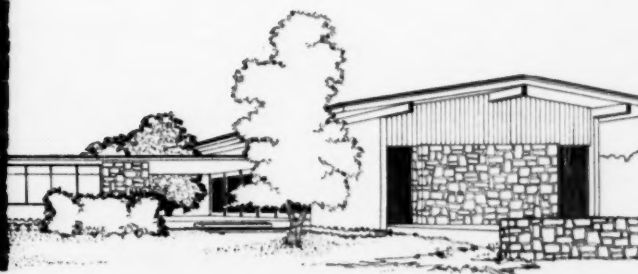
Job-alike groups are a third new idea. On two half days members will meet with persons who have the same kind of jobs.



NEW EXECUTIVE COMMITTEE: (standing) James L. Taylor and James L. Reid, holdover committeemen, and W. D. McClurkin, secretary-treasurer; (seated) George D. Englehart, retiring president and ex-officio member; Lloyd L. Waite, president, and N. L. George, retiring committeeman. Not shown are Arnold C. Tjomsland, vice president, and Merle A. Stoneman, who succeeded Dr. George.



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Educators Are Told What Is Ideal School

SARANAC INN, N.Y. — "The differences between a school that is doing a fairly good job and one that is doing a really top-quality job are little differences which add up to a tremendous whole," said Alice L. Foley, elementary supervisor at Brighton, N.Y. She was addressing the 77th annual meeting of the Council of School Superintendents of the State of New York.

In what Miss Foley considers a "quality" school, a philosophy of education from kindergarten through Grade 12 would be worked out by a joint commit-

tee of elementary and high school teachers, administrators, boards and lay people.

"We cannot build the kind of educational program we want in America, if beginning with the graduate school, each area superimposes its demands on the area underneath," asserted Miss Foley.

Make-Believe Grammars Measure 'Ear for Language'

NEW YORK. — "Artificial languages" and "make-believe grammars" are measuring a person's "ear for language" even though he may have had no experience or training outside his native tongue.

Administrator Must Make Safety Education His Business, Say Experts at National Safety Council Convention

CHICAGO. — "Safety, like religion, is something that everyone favors," school administrators were told at the recent National Safety Congress, the annual convention of the National Safety Council.

E. Forrest Gaines, managing director of the Greater Baton Rouge Safety Council, Baton Rouge, La., defined his statement by saying that safety is a band wagon on which everyone wants to ride. Some of those who climb aboard are most sincere, while others have personal gain foremost in their minds, he added.

It is the administrator's responsibility to be acquainted with the policies established by his employer, the board of education, in governing the use of services and materials of outside agencies in the school's safety effort, declared Mr. Gaines.

"What leadership and aid can come from the state education department?" was the question discussed by Ivan Stehman, coordinator of highway safety education, Pennsylvania Department of Public Instruction, Harrisburg.

Functions of the state department of education, said Mr. Stehman, should include: (1) administration, or carrying out the mandates of the legislature; (2) leadership in carrying out a program of general safety and encouraging cooperation on the state and local levels; (3) consulting services and assistance in promoting teacher workshops or teacher inservice training for driver education; (4) cooperation with colleges and universities, voluntary organizations, and official agencies interested in safety and driver education; (5) research in safety education and assistance to schools in interpreting and applying their findings, and (6) means of continuously evaluating safety and driver education programs.

"Everybody wants safety education but keep your cotton-pickin' foot out of my door," concluded L. Vaughn Gayman, director of publicity for Loras College, Dubuque, Iowa, and news director of a Dubuque radio station. Everybody wants to be stopped before being hurt but

stopped by some mysterious outside agency with more sense than he has, asserted Mr. Gayman.

George P. Silverwood, director of safety for the public schools of Green Bay, Wis., spoke on collecting and classifying information on school accidents. Some of his points were:

1. Child accident statistics must be translated into easy reading, and concrete and specific countermeasures must be set forth as teaching suggestions, or be incorporated into the curriculum.

2. Low accident frequencies do not necessarily indicate the quality of the safety education program; they may simply reflect poor accident reporting.

3. It is necessary to carry on a continuous campaign among principals, teachers and students in order to achieve thorough reporting of accidents.

4. By and large, the best medium for collection of accident facts is the Standard Student Accident Reporting System. "While far from perfect, it is more practical and effective than any other yet devised," said Mr. Silverwood.

The big job today, declared Mr. Silverwood, is to determine which are the most important accident facts; if we are collecting information that has relatively little significance, it could be deleted from the accounting program.

Much remains to be done to provide adequate facilities and devices for the fire safety of new building and additions, said Lonnie Gilliland, director of safety education for the public schools of Oklahoma City. This statement was based on the findings of a safety education activities committee as to such present practices as school fire exit drills, signaling devices, panic bars on exit doors, "recall" signals, and the school policy on smoking.

Existing trends and their implications for curriculum development and the role of the supervisor in American education were discussed by George W. Denemark, dean of the school of education at the University of Wisconsin at Milwaukee,

The new test, devised by Prof. John B. Carroll of Harvard University and Stanley M. Sapon, now professor of modern languages at Ohio State University, can measure what is apparently a special talent for languages. People who score high in the test are likely to do much better in languages than those who score low, according to its developers. They state that the test shows only a moderate degree of relationship with general intelligence.

The complete test has five parts, takes an hour, and is administered with a tape recorder. A "short form" uses only the last three parts, takes only a half hour, and does not require a tape recorder. Just released for use in high schools, colleges and foreign language schools, the test is already in use by several U.S. government agencies and military organizations.

Create Trust From Fund for School Fire Victims

CHICAGO. — The \$278,326 balance in the fund established for the victims of the Our Lady of the Angels school fire one year ago has been placed in trust. Medical bills of the children still being treated will be paid from this trust fund.

Contributions amounting to \$528,717 came from 11,000 firms and individuals in the United States and foreign countries. From them, payments of \$1000 have been made to each family that lost a child in the fire.

The trust, administered by the mayor's office, will be reviewed in 10 years, and if all needs pertaining to the fire have been met, the remaining money will go to the Chicago Community Trust.

Msgr. William McManus, Catholic archdiocesan superintendent of schools, told The Nation's Schools that a survey is being conducted of the ways in which Chicago's Catholic schools are making provision for the safety of their children.

American Education Backed by British Newspaper

MANCHESTER, ENGLAND. — Cries against the education system of the United States "have not been entirely justified," declared a recent editorial in the Manchester Guardian, a leading British newspaper.

"Political and administrative failures, not its underlying philosophy," are responsible for the shortcomings of American education, stated the Guardian.

The editorial further explained that "the main faults outstanding are lack of money and administrative confusion — both due, in the last analysis, to the federal Constitution itself. Education is the responsibility of the states, not the federal government — and the states are chronically impoverished."

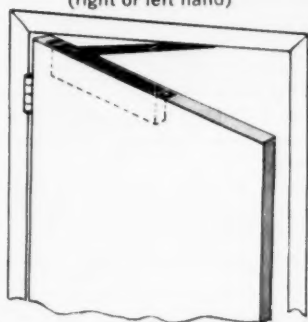
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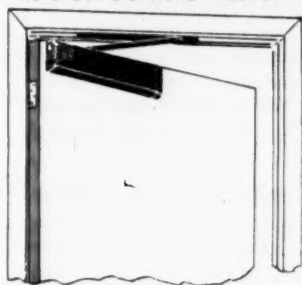


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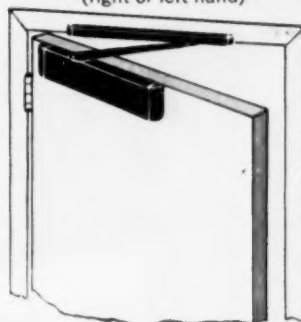
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Council Considers Safety, Functional Planning

(Continued From Page 128)

During the four days of meetings, council members did considerable soul searching as to the council's organizational destiny. Some favored continuation of its traditional role as a study group. Others emphasized repeatedly the "expanding role of the council" particularly with its entry into the postsecondary field, and urged broadening of its scope to include management, utilization and other areas of concern to school plant personnel. The matter of "setting up an office and a staff to transact business and to promote and implement research, using the unparalleled human resources of members," was broached.

The upshot of these various explorations was a mandate to the council president to appoint ad hoc committees to consider and report back at the 1960 meeting on the following matters:

1. Changing the council's name to make it less limiting and to reflect more nearly the broadening range of interest.
2. Restating organizational purposes and objectives.
3. Recasting present membership requirements. Candidates now must be devoting more than half their time to school planning.

4. Determining the proper relations between the council and regional associations of school plant personnel. The previous stand has been to encourage members to participate in these groups, with the latter setting up their own membership requirements and meeting their own purposes in their own way without involving the council.

Business Transacted

During the week members also:

1. Elected Lloyd L. Waite, Shreveport, La., president, and Arnold C. Tjomsland, Washington State Department of Education, vice president.
2. Accepted some 22 new members to offset a similar number of expirations, leaving council membership at approximately 300.
3. Put finishing touches on a 169 page mimeographed manual on postsecondary school plant planning, to be published early in 1960 under the tentative title of "Planning Facilities for Higher Education."
4. Received findings of research studies on school furniture and equipment and its rehabilitation, but withheld publication pending consultation with the Association of School Business Officials.

5. Took steps to revise the 1958 edition of "Guide for School Plant Planning" by 1963, and to prepare a handbook for liaison officers by next year's conference.

6. Obtained from members suggestions for helpful research studies in the school construction field.

7. Spent many hours in three study groups on elementary, secondary and postsecondary education, into which all registrants had been divided. Devoted one evening to discussion groups in three areas: planning, maintenance and operation programs; planning for use of audio-visual aids, and planning thermal comfort in school buildings.

8. Set aside one afternoon for school visits in Missouri and Kansas.

9. Reconfirmed Toronto as the 1960 convention city and designated Atlanta for 1961. Thereafter an effort is to be made to fix a date preceding or following that of the Association of School Business Officials, with the possibility of joint sessions on at least one day.

Caution Against Hysteria

Two other resolutions were adopted. The first restated the position of the council "concerning the acute need for both national and state support of public school building programs" and emphasized that "this partnership program should recognize that the control of the public education program must be retained at the state and local level."

The second resolution re-emphasized the planners' concern with the fire safety of school children and recalled that the national 1939 school fire exit code had been drafted by organization members. The body urged that "research findings, common sense, and logical action be utilized in solving these important (fire) problems," but cautioned against any hysteria in formulating local school building codes and other regulatives which would hinder, rather than serve, the cause of education.

Among others on the rostrum at various sessions, in addition to committee chairmen and liaison officers, were these speakers:

Hubert Wheeler, Missouri commissioner of education, and Adel F. Throckmorton, Kansas state superintendent of public instruction, who brought words of greeting.

Study Fallout Protection

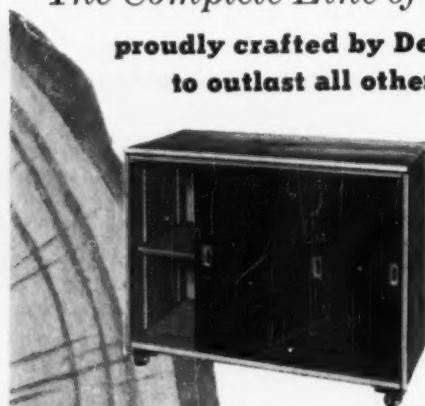
F. O. Starr, regional director, Office of Civil Defense, Battle Creek, Mich., who acquainted members with the relative dangers of nuclear blast and fallout. He urged them to make an immediate survey in their local school systems to identify the areas that would provide greatest protection not only from nuclear attack but also from tornadoes and other disaster threats, and to work out their own best survival plan.

(Cont. on p. 134)

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(Continued From Page 132)

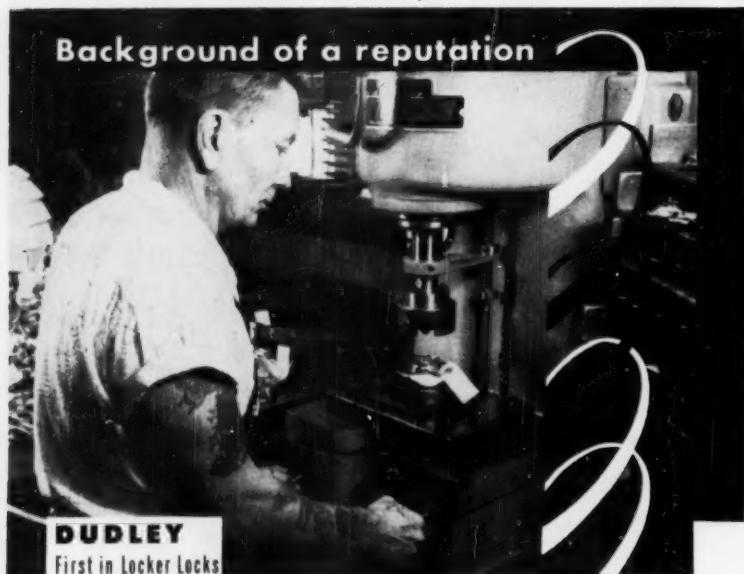
James A. Hazlett, superintendent of schools at Kansas City, Mo., who said that the planning of a school must reflect local tradition, policies and objectives and must be a blending of localism and educational idealism. He urged the school planners to make themselves sensitive to today's changing philosophy in education so they can "translate into mortar and stone a physical expression of the curriculum." Administrators, said he, should involve in school planning the teachers who will use the facilities as well as the specialists, but must step in when necessary to assure balance and perspective for the ultimate program.

W. M. Ostenberg, superintendent of schools at Salina, Kan., who observed that the federal government appears to be willing to pay for everything but the construction of schools and provides twice as much in funds for the processing of feed as for children. Somehow, he said, we must "get some arousal started," so that all concerned with education will do a better job of selling the most unique program in history, that of the public school, to our neighbors.

Thomas J. Higgins, director, division of maintenance and repair, Chicago public schools, who gave a report at Tuesday's luncheon meeting on the December 1958 fire at Our Lady of the Angels School.

Architect William W. Caudill, who addressed one of the discussion groups on the subject of air conditioning.

The newly elected president, Lloyd L. Waite, told The Nation's Schools that during the coming year the council will continue to concern itself with the curriculum as it relates to long-range school plant planning. He gave assurance that committees would give careful study to suggested changes in name, scope, objectives and membership requirements, as spelled out by the several resolutions. With the increasing complexity of building problems and changes in educational emphasis the council can't remain static, he said.



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VICE PRESIDENT
Arnold C. Tjomsland is director of school plant facilities for the Washington State Board of Education.

In addition to President Waite and Vice President Tjomsland, the new executive committee consists of the following: W. D. McClurkin, director of surveys and field services of George Peabody College for Teachers, Nashville, Tenn., secretary-treasurer, reelected for his 14th one-year term; George D. Englehart, retiring president, who automatically became ex-officio committeeman; Merle A. Stoneman, professor of school administration at the University of Nebraska, who succeeded N. L. George, Oklahoma City, and the two continuing committeemen, James L. Taylor, specialist for planning school buildings, U.S. Office of Education, and James L. Reid, supervisor of school plant, Maryland State Department of Education, Baltimore. — Leo E. Buehring.

Says Schools' 'Shortcomings' Handicap Students' Learning

ATLANTIC CITY. — Public school instruction is often outmoded and second-rate, stated Francis S. Chase, chairman of the education department of the University of Chicago, at the annual conference of the New Jersey School Superintendents here.

He asserted that the sciences being taught are not in line with current theory and that mass production techniques have become so standardized that the waste of talent is becoming "intolerable."

Teaching talent is not being used effectively, nor is the highly creative teacher rewarded, criticized Dr. Chase. He believes that these failures, along with the shortage of good teachers, are handicapping learning.

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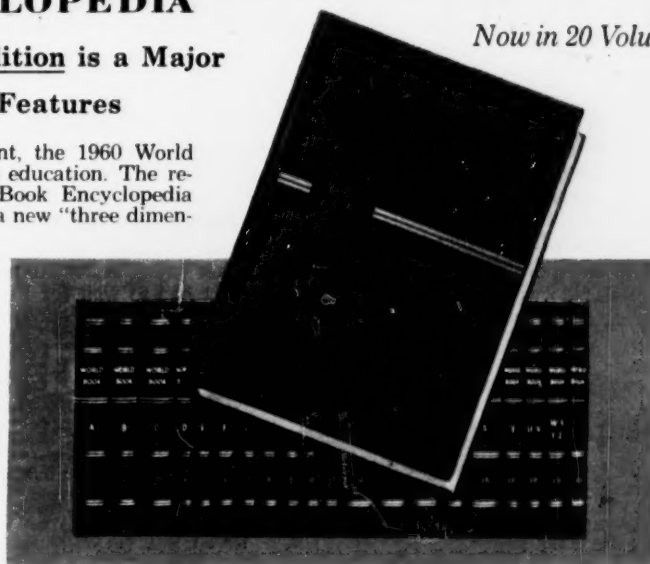
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Smoke Is the Killer!

(Continued From Page 62)

tially offset by elimination of plans to install fuse-link doors and baffle vents, both of which were proved to be quite unsatisfactory.

California Fire Marshal Joseph Yockers reached another major decision based on test results. He recommended that the double-loaded center corridor method of construction be abandoned. As a safer alternative, he urged construction of schools with direct exits from each classroom in one-story buildings.

In multistory buildings, Mr. Yockers recommended external corridors with

stairways at all four corners. He contends such changes would entail no increase in building costs.

The National Fire Protective Association, 60 Battery March Street, Boston 10, is expected to distribute up to 10,000 copies of the test results to schools and fire departments throughout the world.

Fire officials in Los Angeles admit their pioneer approach to solving a critical national problem is only a beginning. These officials hope that what they have started will be extended by experimenters elsewhere so that school children all over the world need no longer fear the sound of a fire alarm.



Thirteen 9-ply radial arches span 72', spaced 10' o.c., center height 24'. Twenty-eight classroom beams of varying lengths. Rilco Deck used throughout.

Talk about low-cost construction, this striking school was built for only \$7.30 a square foot.

One reason for big saving is Rilco laminated wood arches and beams used extensively throughout the school. In the gym, handsome Rilco arches allow plenty of room. No cold bare "construction" look here. Rilco arches add a warm friendly feeling, mellow with age, require little maintenance. Classrooms and lunchroom utilize Rilco beams. Rilco deck also kept costs down by replacing lath, plaster, joists, bridging. Combines roof and interior ceiling in one application.

Rilco components are safe, strong, sturdy. Above all, Rilco means fire safety. Laminated wood won't suddenly buckle under intense heat, allows time for evacuation.

One thing more — fast erection. The contractor says: "A very important item to us is delivery. We have never yet had to wait for Rilco during construction." For more information write:



Kiowa elementary school, Kiowa, Colorado
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When the Fat Hits the Fire.

Agreeing with a Canadian teachers college that fat teachers are not good teachers, the Ontario government in Toronto has upheld the college's decision to fire a 278 pound student teacher because he's too fat. The teachers education medical board denies that Jimmy Babinetz, 19, got the axe because of any pension plan. The youth's parents, it seems, charge they were told the decision was taken because it was feared the young giant would be a "liability to the teachers' pension fund." And F. S. Rivers, deputy minister of education, says the Ontario education department is in a position to overrule the decision, but that it will not do so.

Perfect 36. A beautiful blonde third grade teacher has been chosen "Miss White Plains" by the New York suburb's chamber of commerce. Dorothy Miller won out over representatives of retail stores, banks and other firms to represent the city at civic functions.

One for the Books! A \$250,000 school building in Huron, Ind., has burned to the ground because help was refused by a volunteer fire department in a village 10 miles away, according to a news story in the Chicago Tribune. Hugh Mefford, township trustee and school officer, says: "We didn't call anybody else. (The neighboring fire department had said it could not and would not go outside its village limits to fight a fire.) We all got excited and stood around and watched the school burn. We felt nobody would come." Fire officials in the county seat of Bedford say they would have come had they known of the fire.

Flying Television

(Continued From Page 128)

technical and financial barriers to improve the quality of education. Council Chairman Samuel M. Brownell, superintendent of schools in Detroit, states that the council "was formed because of the challenge facing American education to provide sufficient quantity of educational opportunities for a fast-growing population along with improved quality of instruction — and to provide both quantity and quality within feasible costs."

The project is not a facility to replace the classroom teacher, but to allow her more time to devote to individual needs of students, it was made clear. Specifically, the experiment seeks to give students educational experiences that might be too costly otherwise.

Financed by a Ford Foundation appropriation amounting to \$4.5 million in grants for various phases, the project will be supplemented by grants from corporations that have given assurances of support. Other industries will provide equipment or services.



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Shape Up or Ship Out. Chicago's Catholic school seventh and eighth graders (there are 60,000 of them) are facing more homework and tougher grading this year. The new push for at least one hour of homework each night is part of a plan to toughen up elementary children for the "realities of high school life." It will, in the words of the Very Rev. Msgr. William E. McManus, superintendent of archdiocesan schools, "help break the pupils from the spoon feeding type of education of the lower grades to the more self-reliant type they face in high school." He has introduced a new report card that rates upper grade pupils on achievement alone rather than on a correlation be-

tween ability and achievement as used in the lower grades.

Honesty Best Policy? Forty per cent of 423 undergraduates at Western Reserve University in Cleveland admit that they cheat in classwork. The 423 participated in a recent student sponsored poll. Of those polled, some 183 admit to some degree of dishonesty, and 103 admit to "wandering eyes" during examinations. Some 71 respondents admit plagiarism. Dean Russell Griffin says the amount of cheating revealed does not strike him as high. "Only 30 per cent of the student body of 1500 participated in the poll," he notes.

Coming Events

DECEMBER

1-3. California Association of School Administrators, annual convention, San Francisco.

26-31. National Science Teachers Association, annual joint meeting with Science Teaching Societies of American Association for the Advancement of Science, Chicago.

28-30. Speech Association of America, national convention, Washington, D.C.

JANUARY

30. National Council of Teachers of Mathematics, joint meeting with Mathematical Association of America, Chicago.

FEBRUARY

11-13. American Association of Colleges for Teacher Education, 12th annual meeting, Chicago.

11-13. United Business Education Association, national meeting, Chicago.

13-17. American Association of School Administrators, Atlantic City.

15-17. American Educational Research Association, N.E.A., Atlantic City.

27-Mar. 2. National Association of Secondary-School Principals, N.E.A., 44th annual convention, Portland, Ore.

MARCH

6-9. Association for Higher Education, 15th national conference, Chicago.

6-10. Association for Supervision and Curriculum Development, N.E.A., 15th annual meeting, Washington, D.C.

26-30. Department of Elementary School Principals, N.E.A., annual meeting, St. Louis.

27-April 2. 1960 White House Conference on Children and Youth, Washington, D.C.

APRIL

3-9. National Library Week.

17-22. Association for Childhood Education International, annual study conference, Cleveland.

20-23. National Council of Teachers of Mathematics, annual meeting, Buffalo.

24-27. National School Boards Association, annual meeting, Chicago.

JUNE

12. United Business Education Association, annual meeting, Los Angeles.

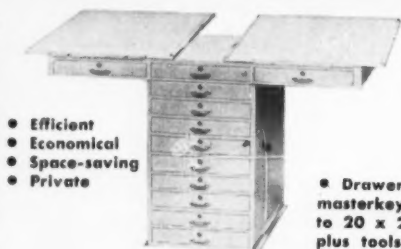
19-23. National Association of Student Councils, National Association of Secondary School Principals, annual conference, Janesville, Wis.

26-July 1. National Education Association, annual meeting, Los Angeles.

29. National Council of Teachers of Mathematics, N.E.A., joint meeting, Los Angeles.

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- Efficient
- Economical
- Space-saving
- Private

provides open working surface and horizontal board storage facilities for
12 students

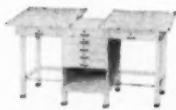
• Drawers have individual locks, masterkeyed . . . hold boards up to 20 x 26 in horizontal position plus tools, other material.



for 10 students
the DU-1000



for 9 students
the DU-900



for 7 students the DU-700



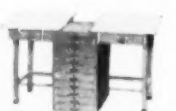
for 6 students
the DU-600



8-drawer
cabinet unit
the DU-800



5-drawer
cabinet unit
the DU-500



Dual boards and
drawer space for 12
the DU-1200

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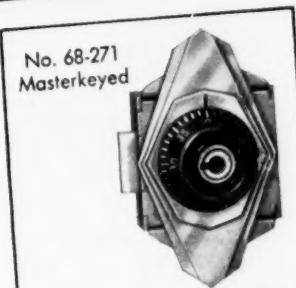
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Masterkeyed



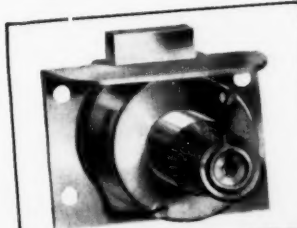
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Not
Masterkeyed



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Masterkeyed



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No. 68-259
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Positive locker protection is a matter of sound engineering and quality components in the locks you buy. There are no short cuts . . . no substitutes! That's why schools everywhere praise the dependable, long-term performance of National Lock combination locks. (Check the quality features listed below.) Simplified re-setting of combinations and a complete system of locker control make National Lock combination locks mighty convenient to use. Investigate the other advantages, too.

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SHACKLE LOCKS

- Wrought metal working parts
- Steel parts are electro-plated
- Chromium plated shackle
- Stainless steel outer case (on 68-264 only)
- Self-locking
- 3-number dialing
- Available with or without masterkey feature

BUILT-IN LOCKS

- Wrought metal working parts
- Steel parts are electro-plated
- Zinc-plated bolt and box
- 3-number dialing
- Baked enamel dial
- Fit all standard lockers
- Combinations easily changed
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Master charts for lock records, complete with leatherette binder, are supplied FREE with quantity lock purchases. Write on your letterhead for FREE sample lock.



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About People

Changes in Superintendencies

NORTHEAST

Norman W. Kratz, Council Rock Joint Schools, Newtown, Pa., to Norristown, Pa.

Alexander A. Mackimmie Jr., acting assistant superintendent, Hartford, Conn., to assistant superintendent there.

Arnold B. Copping, Rhinebeck, N.Y., to Herkimer, N.Y., succeeding Byron Greenfield, who goes to Lake Placid, N.Y.

George L. Osterwise, assistant superintendent, Montgomery County, Rockville, Md., to superintendent, Ballston Spa, N.Y.

John A. Chiavaro, superintendent of transportation and attendance, Newfane, N.Y., to director of secondary education there. He succeeds George J. Bligh, who becomes superintendent, Newfane, effective February 1960. Mr. Bligh succeeds Clifford H. Bentley, who will retire.

Lawrence J. Fitzpatrick, high school teacher, Somerville, Mass., to superintendent, Clinton, Mass.

Chester B. Parker, Union No. 6, Buxton, Me., to Union No. 18, Bridgton, Me., succeeding Carl E. Bowers, who goes to Union No. 77, Belfast, Me.

Rudolph Merick, Shannock Valley Union School District, Kittanning, Pa., to Jeannette, Pa., succeeding James Bennett, who goes to Hempfield Area Joint School District, Greensburg, Pa.

MIDWEST



Paul H. Emerich

Paul H. Emerich, Fremont, Mich., to Ypsilanti, Mich., with 19 years' experience as a school administrator, he has taught in the graduate field of school administration at the University of Michigan and Central Michigan University. Dr. Emerich is a past president of the Michigan Association of School Administrators.

Ferris N. Crawford, continuing as chief of higher education and certification, Department of Public Instruction, Mich., has been appointed assistant superintendent of public instruction in charge of general education.

Konrad Wittmyre, Felton, Minn., to Russell, Minn., succeeding Michael J. Stolee, who goes to Clarkfield, Minn. Mr. Stolee succeeds H. A. Hagg, who retired after 38 years as superintendent there.



John Prash

John Prash, high school principal, Bell Flower, Calif., to superintendent, Racine, Wis. He had served the Racine school system previously, beginning in 1948, as head coach of Washington Park High School. In 1951 he became principal of the school and held that position until going to California in 1956.

Lester E. Angene, acting superintendent, Euclid, Ohio, to superintendent there.

Harry Salisbury, assistant superintendent, Maple Heights, Ohio, to superintendent there.

Richard M. Speas, Otho, Iowa, to Lee County, Fort Madison, Iowa, succeeding Charles L. Rupert.

SOUTH

Jesse M. Randel Jr., high school principal, Beaufort, S.C., to superintendent, District No. 1, Beaufort.

Charles D. Munson, junior high school principal, Beckley, W. Va., and assistant superintendent, Raleigh County, Beckley, to superintendent, Upshur County, Buck-

OLYMPIA HIGH SCHOOL
Architects: Faragher & Macomber



CRAIG HILL ELEMENTARY SCHOOL Architects: C. Storrs Barrows & Associates

LONGRIDGE SCHOOL
Architects: Woodruff & Northrup



At Greece, New York

THREE MORE SCHOOLS TO HAVE BUILT-IN CLEANING ECONOMY

with **SPENCER VACUSLOT® SYSTEMS**

In these days when administrators and school boards are seeking means of improving sanitation and simultaneously reducing maintenance costs, the case of Greece, New York is significant.

Installed at the West Ridge school, a Spencer Vacuslot system demonstrated its efficiency and economy so effectively that similar systems have been specified into three more schools.

For routine maintenance, large dry mops are used to push dirt and litter to the Vacuslot, where powerful vacuum whisks it away through the piped system. Dry mops are then vacuum cleaned simply by passing back and forth across the Vacuslot.

The versatile system is also used for conventional vacuum cleaning, eraser cleaning, water pick-up (in conjunction with a portable wet separator) and for cleaning boiler tubes.

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CLEANERS.



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Quality is always the guarantee that you're getting the best. Specify "Custom-Bilt by Southern" for your food serving equipment and be guaranteed the very best in craftsmanship, materials, fabrication, installation and maintenance.

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hannon, W. Va. He had been with the Raleigh County school system for almost 30 years.

Bryan T. Taylor, high school principal, Odem, Tex., to superintendent, San Diego, Tex.

WESTERN

William G. Stevenson, elementary school principal, Lake Forest Park School, Seattle, to assistant superintendent, Shoreline School District, Seattle, effective January 1. He succeeds **Myron Ernst**, who will become superintendent, Bellevue, Wash., also effective January 1.

Jay Blaha, assistant superintendent in charge of personnel and curriculum,

Citrus Union High School and Junior College District, Azusa, Calif., becomes administrative assistant, Los Angeles County, Los Angeles.

Melvin Zinser, principal, Washington High School, Phoenix, Ariz., to superintendent, Glendale Union High School District, Glendale, Ariz.

Mary Lisle, elementary school teacher, Akron, Colo., to superintendent, Washington County, Akron.

Other Appointments . . .

Alton W. Cowan, superintendent, Fowler, Mich., and **James F. McClure**, part-time instructor, Lansing Community College, Lansing, Mich., have been

appointed to the staff of the division of administrative services, department of public instruction, Lansing. Mr. Cowan was named consultant, transportation and school district organization, and Mr. McClure was named consultant, school bond loan.

They succeed **Burton Thorn** and **Mills Wilbur**, who become assistant superintendents at Saginaw, Mich.

Richard N. Smith, superintendent, Webb, Iowa, will serve as regional consultant and supervisor for science departments, department of public instruction, Des Moines, Iowa.

Elbert W. Van Aken, superintendent, L'Anse Creuse schools, Mount Clemens, Mich., has been appointed assistant director, bureau of appointments and occupational information, University of Michigan, Ann Arbor.

Thomas J. Lasley, superintendent, Monroeville, Ohio, has accepted the position of business manager, Norwalk, Ohio.

Clyde McDaniel, superintendent, O'Fallon, Ill., has accepted the position of business manager, Rockford College, Rockford, Ill.

Retirements . . .

Firman S. McCormick, assistant superintendent, junior and senior high schools, Cleveland. He had held the post since 1954.

William Slade Jr., superintendent for 15 years at Shaker Heights, Ohio. He had spent 42 years in the education field. His retirement is effective September, 1960.

Harry D. Anderson, superintendent of Maine Township high school district Park Ridge, Ill. He has been an administrator of community and secondary schools in Illinois for 32 years.

Died . . .

Abraham Ehrenfeld, 69, retired assistant superintendent of Districts 19 and 20 of the Bronx, New York City. He had served the public schools of Manhattan as teacher, assistant principal, and principal. From 1927 to 1940 he was an instructor in the school of education, City College.

William C. Frantz, 70, retired superintendent, Venango County, Franklin, Pa. He had been a one-room elementary school teacher, high school principal, and assistant county superintendent during his 45 years in the field of education.

Wilson Hawkins, 85, retired superintendent at Canton, Ohio. He had been president of the Ohio Education Association and in 1928 received a medal from the N.E.A. for his work in the field of education, as well as a life membership in that organization.

Foy E. DeHaven, 56, superintendent at Radford, Va., since 1942.

ELEMENTARY Science Demonstrations

IN ANY ROOM! ON ANY BUDGET!

Grade-Aid
Corporation's
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ALL-STEEL
JUNIOR MODEL
PORTABLE
SCIENCE TABLE

MODEL 9501

Priced within reach of the smallest budget, this portable unit meets every requirement for conducting laboratory experiments in elementary schools. Fire-safe all-steel construction for durability. Completely self-contained! Offers maximum flexibility and efficiency! Large 48" x 30" table top.

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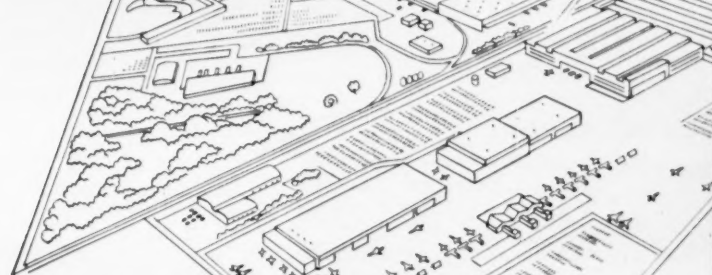
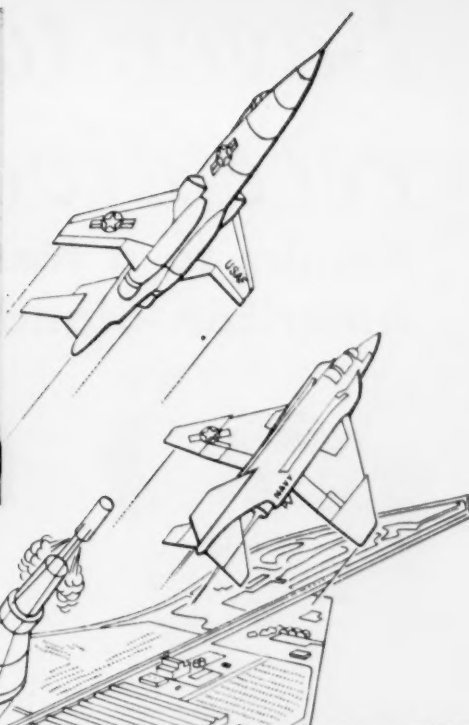
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 NEW **STYLE** FLOOR FINISH FOR THEIR FLOORS...

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Vestal's new **STYLE** floor finish is all synthetic. New hard plastic Polymers make it especially tough. **STYLE**'S beautiful, fresh-coated appearance lasts much longer ... means less frequent re-coating ... better appearance between applications ... and most important—savings in labor costs.

Why not discover **STYLE**'S appearance and economy in your floor maintenance program. Mail the coupon at right for your "proof" demonstration.



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Eager to learn... receptive to teaching

thanks to a Nesbitt system from American-Standard* Industrial Division



Only the comfortable student can take full advantage of classroom learning opportunities. A Nesbitt Syncretizer provides the right classroom "climate" for every student in every part of the room . . . and for each room, regardless of outside climate conditions.

By eliminating the problems of overheating, underheating, drafts, cold walls, stuffy air, odors and noise, the Nesbitt system creates an environment in which students are most receptive to teaching. And it does so at savings worth your full investigation. AMERICAN-STANDARD INDUSTRIAL DIVISION, DETROIT 32, MICHIGAN. IN CANADA: AMERICAN-STANDARD PRODUCTS (CANADA) LIMITED, TORONTO, ONTARIO.

HOW YOU GET CLASSROOM COMFORT AT REDUCED COST!

A Nesbitt Syncretizer in each classroom provides heating, ventilating and natural cooling. Wind-o-line Radiation solves the dual problem of cold walls and window downdrafts. Combined, they provide optimum comfort for every student . . . at savings of 20% or more on construction, installation and equipment costs.

This Nesbitt system provides the required heat (in addition to ventilation and natural cooling) with only one-third as much hot water as conventional systems. This permits the use of smaller, less expensive pipes and pumps. Factory installed crossover tubing, expansion loops and balancing valves eliminate expensive jobsite labor.



Wind-o-line Radiation is the supply and return piping for entire classroom wings, eliminates costly pipe trenches, mains, runouts and insulation.

Total savings make it possible for every school to take advantage of this finest heating and ventilating system money can buy.

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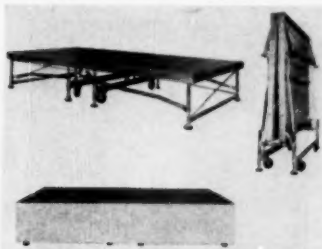
AMERICAN BLOWER PRODUCTS • ROSS PRODUCTS • KEWANEE PRODUCTS

Edited by BESSIE COVERT

TO HELP YOU get more information quickly on the new products described in this section, we have provided the convenient Readers Service Form on page 161. Check the numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. The NATION'S SCHOOLS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Portable Stages and Chair Stands Built to Grandstand Safety

Offered in modular sections, the new and complete line of Sico portable stages



and chair stands is built to public grandstand safety codes. All units are custom designed for flexibility and are interchangeable. They are constructed for locking together to produce platforms of various sizes and shapes to meet institutional needs. Designed to fold for compact storage, the new mobile staging incorporates a unitized steel framework coupled with a folding design that conserves space and labor. Sico Mfg. Co., Inc., 5215 Eden Ave. S., Minneapolis 24, Minn.

For more details circle #448 on mailing card.

Integral Hinge Brackets Strengthen Toilet Compartments

The strength of the new Sanymetal Integral Hinge Brackets for toilet compartments is demonstrated in the accompanying illustration. Bracket and hinge are also durable in use, assuring minimum maintenance with maximum resistance to abuse. They are made of heat-treated, high tensile cast aluminum alloys, and laboratory tests for opening and closing show no evidences of wear. The new brackets are installed at the factory on toilet compartment pilasters and permit quicker installation of doors with improved appearance.



The new brackets have no external bolts which show, do not interrupt the flat surface of the pilasters, and are finished to match. Sanymetal Products Co., Inc., 1705 Urbana Rd., Cleveland 12, Ohio.

For more details circle #449 on mailing card.

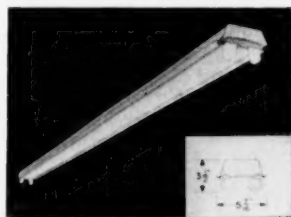
Institutional Cleanser Has Chlorine Bleach

Ajax Cleanser with Instant Chlorine Bleach is now available for institutional use. The new cleaning product is designed to remove stains quickly and the smooth texture makes it rinse away with no gritty residue. The "built-in" chlorine bleach eliminates the need for an extra bleaching product and disinfects as it cleans. Colgate-Palmolive Co., Associated Products Dept., 300 Park Ave., New York 22.

For more details circle #450 on mailing card.

Lite-Way Strip Units for Economical Lighting

Quality and low price are features of the new Lite-Way two-lamp Strip Unit lighting fixtures introduced by Day-Brite. Available from four-foot Rapid-Start, eight-foot tandem Rapid-Start and eight-foot slimline lamps, the fixture can be transformed into a finished, shielded unit by the addition of Day-Brite Fairview enclosures. Designed for surface or suspension mounting, Lite-Way has four or eight-foot rigidized chassis.



CBM ballast and is fused to give safe overload protection. Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis 15, Mo.

For more details circle #451 on mailing card.

Ease of Installation With Improved Bolta-Wall

No special tools are needed to apply the improved vinyl Bolta-Wall tile to any surface generally suited for wallpaper, including ceilings. A special non-staining adhesive applied to the wall provides a virtually unbreakable bond. Bolta-Wall is easily cleaned with a damp rag, its colors will not fade and it is available in a wide range of patterns. The General Tire & Rubber Co., 1708 Englewood Ave., Akron 9, Ohio.

For more details circle #452 on mailing card.

File and Magazine Unit in Kitchen Maid Home Ec Equipment

The quality wood line of Kitchen Maid cabinets is now available for school installation in home making departments. Ruggedly built at every point of stress for school use, the new line retains its beauty of line and the attractive texture of the wood paneling. The File and Magazine unit illustrated contains open shelf and drawer

WHAT'S NEW for Schools

storage space with areas for posters or work display. Drawers are quiet, smooth-sliding, durable and free of maintenance problems. Shadow-Line styling for modern appearance



is supplemented with a wide selection of wood finishes or enamel colors. The Kitchen Maid Corp., Andrews, Ind.

For more details circle #453 on mailing card.

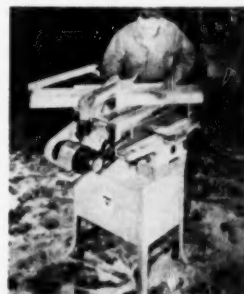
Johnson's Shine-Up Spray Cleans and Waxes

Woodwork, walls, fixtures, metal and wood furniture and other materials can be quickly and easily cleaned and waxed with the new Johnson's Shine-up Spray. Supplied in an institutional sized spray dispenser, Shine-up cleans as it waxes, speeding the work of dusting and preventing dust from being released into the air. S. C. Johnson & Son, Inc., Racine, Wis.

For more details circle #454 on mailing card.

Saw-Jointer Combination for Woodworking Shops

A low-cost saw-jointer combination is available in the Delta line of woodworking equipment. The new unit combines the deluxe Delta four-inch Precision Jointer and the standard nine-inch tilting arbor circular saw. Lower cost, mobility, convenience and easier material handling are advantages stated. The machine can be easily moved from one location to another



and permits cutting and planing on the same tool. Rockwell Mfg. Co., Delta Power Tool Div., 461 N. Lexington Ave., Pittsburgh 8, Pa.

For more details circle #455 on mailing card.

(Continued on page 146)

Fume-Hood Portable Science Table Has All-Around Visibility



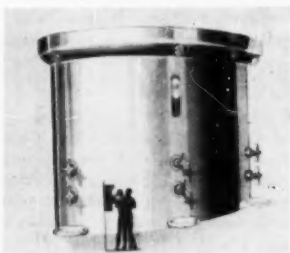
All-around visibility with safety is a feature of the new portable science demonstration table for schools and colleges. Smoke, heat and fumes are safely confined and exhausted by the completely transparent fume hood enclosure which permits observation of experiments from any place in the room. The unit is completely self-contained, carrying its own sink, water, gas, electrical outlets, and fume exhaust system, and can be easily moved from room to room for demonstrations in laboratories, lecture halls or classrooms. Laboratory Furniture Co., Inc., Old Country Rd., Mineola, L.I., N.Y.

For more details circle #456 on mailing card.

Column Type Showers for Multi-Person Use

The Wall-Mounted type Multi-Person Shower is now available in the Bradley

Washfountain line. The showers are provided with three or two adjustable shower heads, soap trays and control valves, enabling one set of piping connections to serve two or three shower facilities with each bather having individual control of water volume and temperature. The new Wall Shower is self-contained, assembled for mounting on walls at any desired



heights, and is particularly suitable for narrow rooms. Bradley Washfountain Co., 2203 W. Michigan Ave., Milwaukee 1, Wis.

For more details circle #457 on mailing card.

Floor Safety and Protection In Slip-Resistant Wax

Retention of slip resistance without any noticeable loss of gloss is an outstanding feature of Fullstop, a light-colored floor polish containing synthetic resins and plasticizers dispersed in water. Fullstop has good leveling properties, is resistant to scuffing, makes no appreciable color change and strips as easily as other floor wax. It is recommended for use on asphalt, vinyl,

linoleum, rubber and properly sealed wood floors. Fuller Brush Co., Industrial Products Div., Hartford 15, Conn.

For more details circle #458 on mailing card.

Book Copying Unit in Verifax Copier Line

The new Verifax Book Copying Unit is a portable device designed as an accessory for other Verifax Copiers. It makes exposures of books, magazine pages or other documents up to 8½ by 11 inches in size. The exposed matrix paper is then activated to produce copies in any of the four Verifax Copiers now available. A vertical wedge-shaped exposure section permits copying of even the most



tightly-bound books. Safe support prevents damage to the binding of the book during exposure. A specially-designed carrying case available as an accessory makes the unit convenient for copying book pages in any area. Eastman Kodak Co., Rochester 4, N.Y.

For more details circle #459 on mailing card.

AJUSTRITE CHAIRS AND STOOLS



- Proper classroom posture
- No soiled hands when adjusting seat
- Child can adjust seat—it's so simple

AJUSTRITE TYPING CHAIRS

Model TSC-1520 Typing Chair and Model 2228 Table. Adjust the chair, not the table, and save on your original investment. Saddle shaped hardwood seat adjusts from 16" to 21". Form fitting backrest (metal or plywood) has vertical and horizontal adjustments of 5°.

Model CPC-1520 Typing Chair

Form fitting plywood seat adjusts from 15" to 20". Form fitting plywood backrest adjusts 5° vertically and horizontally.

FREE TRIAL Use an AJUSTRITE chair and table for 30 days without obligation. Prove to yourself the many advantages AJUSTRITE offers in comfort, utility and economy. Write today—we'll do the rest.

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32 Models for Factories • Schools • Laboratories • Hospitals • Offices



AJUSTO EQUIPMENT CO.
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Finnell Battery-Powered Machine Is Customer Designed

Five years of research and development have gone into the new battery powered scrubber-vacuum combination introduced by Finnell and based on users' requests for a floor machine. The new Mark 20 and Mark 26 machines are engineered to clean



up to 21,600 square feet of floor per hour of operation. The quiet action of the battery driven machines makes them particularly suitable for institutional floor cleaning. Powered by four six-volt, 25-plate batteries with an operating life of six to eight hours, the Mark series includes a small, compact battery charger. The machines have a 17-gallon solution dispenser tank and a 19-gallon pick up tank. Finnell System, Elkhart, Ind.

For more details circle #460 on mailing card.

(Continued on page 148)

FOR A FEW...



OR A FLOCK!



They're safe (and you'll save) with a 1960 Dodge School Bus

There's safety for *any* number in this year's new line of Dodge school bus models. For as few as six or eight, in the compact 108" wb. Town Wagon, so practical for small routes or "feeder" use. Or, for a flock of 66, there's the big 254" wb. S600 chassis. Wide choice of "in between" models, too, rated for 30, 36, 48, 54 and 60 pupils.

Different as they are in size, Dodge school buses have two important things in common. (1) *Safety* . . . even beyond NEA requirements, with such features as driver-adjustable emergency brake system . . . and bonus "reserve" power in big Dodge 178- and 202-hp. V-8 engines. (2) *Savings*, because Dodge prices are in line with the lowest.

Dodge is thrifty to operate, too, with V-8's and Sixes that coax extra mileage out of *regular* gas . . . and chassis built the dependable Dodge way to last, last, last!

For these and a *flock* of other reasons, wouldn't it be wise to include your Dodge dealer next time you solicit bids on new school transportation?

DEPEND ON DODGE
TO SAVE YOU MONEY IN TRUCKS

A PRODUCT OF CHRYSLER CORPORATION

Adjustable Backrest on Benchwork Stools

Four new models are available in the Krueger line of benchwork stools. The



standard model is available in heights of 18, 24 or 30 inches and the same stool is

available with a horizontally adjustable backrest. Other models have adjustable telescopic legs. All models are designed to be adapted for correct posture and comfort. The stools have heavy duty construction and the extra large steel seats have a fully beaded bottom edge for safety. The Krueger Metal Products, Green Bay, Wis. For more details circle #461 on mailing card.

Ten Gallons of Milk Dispensed by Model N-10 Super

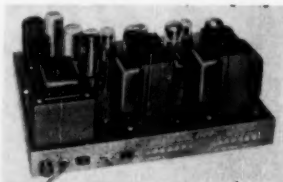
Two five-gallon cans of milk are dispensed by the N-10 Super milk dispenser manufactured by Norris. The redesigned unit is constructed of stainless steel with chrome plated exterior hardware, has two convenient dispensing valves, and an ad-

justable temperature control is mounted on the side of the cabinet. Refrigerated and non-refrigerated dispenser storage stands are also available for the N-10 Super Dispenser. Norris Dispensers, Inc., 2720 Lyndale Ave., S., Minneapolis 8, Minn.

For more details circle #462 on mailing card.

High Fidelity Kits for Electronics Classes

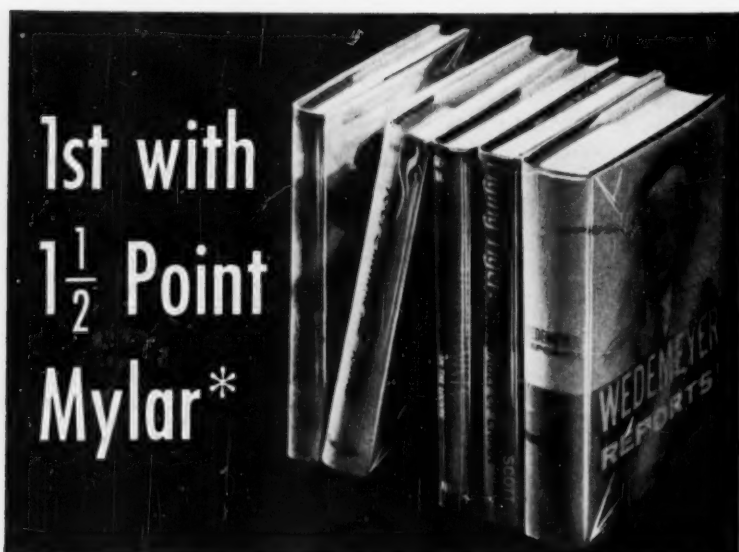
A new high quality stereophonic amplifier, Model HF-87, is available in kit form for easy assembly in electronics classes. It can be used as a stereophonic dual 35-watt amplifier or the two amplifiers can be op-



erated in parallel to deliver 70 watts for monophonic use. The HF-87 is designed and engineered for extremely low distortion and for the greatest possible stability. The kit carries a manual of "beginner-tested" instructions with assembly procedures and illustrations. Electronic Instrument Co., Inc., 33-00 Northern Blvd., Long Island City 1, N.Y.

For more details circle #463 on mailing card.

GAYLORD Book Jacket Covers



For Greater Protection where it Counts

Among the advantages offered by Gaylord Book Jacket Covers are:

Extra Heavy 1 1/2 Point (.0015) Mylar combined with a Kraft paper liner to provide maximum protection.

Super Smoothness with a natural flexibility that permits easy handling.

Bottom Edge Pre-folded to double thickness to keep edges neater, stronger — gives longer wear without added bulk.

Only Six Sizes Needed for regular books ranging from 7 1/8" through 16".



Gaylord Book Jacket Cover. Note double thick, pre-folded bottom edge. Top is easily, quickly folded to conform to jacket.

• Send for illustrated folder that contains complete information.

*DuPont trademark for its polyester film



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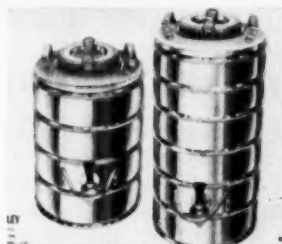
Titan Heating Unit With Wet Back Construction

Compact size with excellent thermal qualities are features of the new Titan 3-pass unit for heat and power. The highly dependable, conservative unit, with complete wet back construction arranged so that hot gases are in constant contact with water cooled steel walls, is constructed for years of trouble-free service with minimum maintenance. Titusville Iron Works Div., Struthers Wells Corp., Titusville, Pa.

For more details circle #464 on mailing card.

Insulated Beverage Servers in Two Capacities

Two new models of the Stanley insulated beverage servers are now avail-



able in three and five-gallon capacities. Designed for serving hot or cold beverages in cafeterias or at special areas, they are ruggedly constructed with complete insulation and extreme thermal efficiency. The inside of the bottom is pitched toward the spigot to permit complete drainage without tilting and the open guard on the spigot permits raising for large cups. Landers, Frary & Clark, New Britain, Conn.

For more details circle #465 on mailing card.

Starter Kit for Overhead Projection

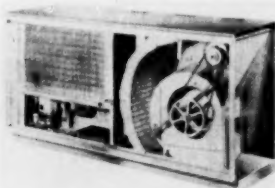


Users of Vu-Graph Overhead Projectors now have available the new Beseler Starter Kit to assist in preparation of materials for teaching and demonstration. A complete selection of tools and materials for quick illustration of important points is contained in the new kit for preparation of material in front of the class or in advance. Illustrations can be in black and white or in color and material can be traced, drawn, lettered or typed. The kit is easy to use, requires no special skill or training and comes in a heavy duty case. **Charles Beseler Co., 219 S. 18th St., East Orange, N.J.**

For more details circle #466 on mailing card.

Air Processing Units for Use With Central Heat

Steam or hot water coils built into the new Lennox air processing units permit use of the Comfort Curtain system in class-



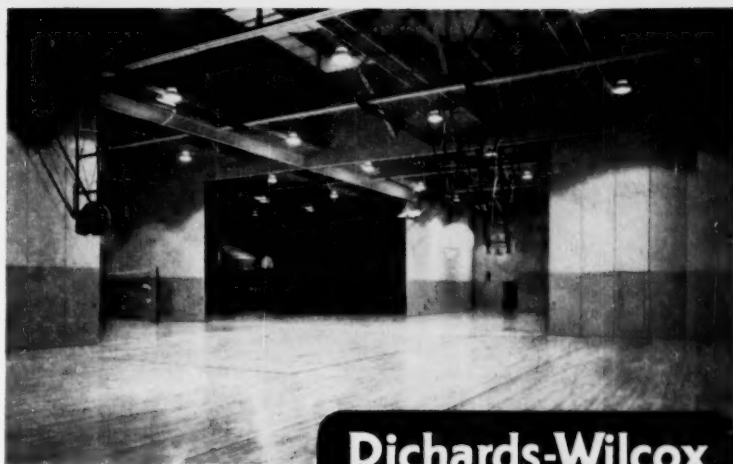
rooms with a central steam or hot water heat source. The new units are available in three colors with matching vinyl tops and are built of heavy-gauge steel, completely factory wired and assembled for quick installation. The DVS2-1200 is used with steam and the DVW2-1200 with hot water. **Lennox Industries Inc., P.O. Box 1294, Des Moines, Iowa.**

For more details circle #467 on mailing card.

Folding Table Features Adjustable Legs

A telescoping leg arrangement which is spring-operated and has finger-tip control is featured on the new adjustable height folding table by Foldcraft. With this leg arrangement, the table can be adjusted from 21 to 31 inches in height, and rigidity is assured with a positive locking device on each leg unit. The table tops are available in unfinished p^l wood, Waytex hardboard with a honeycomb core and Pionite plastic laminated to a plywood core. The table, which will support weights up to 1500 pounds, folds flat to a compact three inches for storage. **Foldcraft Co., Mendota, Minn.**

For more details circle #468 on mailing card.
(Continued on page 150)



4-way R-W "FoldeR-Way" Partition
Janesville, Wisconsin Senior High School
Law, Law, Potter and Nystrom, Architects

Richards-Wilcox FoldeR-Way FOLDING PARTITIONS

for ★ GYMNASIUMS
★ AUDITORIUMS
★ CLASSROOMS



R-W Aluminum "FoldeR-Way" Partition
West Senior High School, Aurora, Illinois
Childs and Smith, Chicago, Architects



Deluxe veneered R-W Partition with chalkboard
University of Pittsburgh, Pittsburgh, Penn.
Schmidt, Garden & Erickson, Chicago, Architects



R-W "FoldeR-Way" classroom divider
Grace McWayne School, Batavia, Illinois
Raymond A. Orput, Rockford, Architect

R-W Folding Partitions effectively and economically solve the problem of dividing space and allow you to efficiently utilize every available foot of valuable floor space. Ideal for dividing gymnasiums, auditoriums and classrooms to meet the changing needs of various sized groups. R-W sound insulated Folding Partitions can be furnished in all types and combinations of wood, vinyl, metal or duck covering to meet your decorating plan. Available in a type and size to meet almost any conceivable situation . . . manually or electrically operated.

Contact your local R-W Sales-Engineer . . . he will survey your problem and recommend the right type and size "FoldeR-Way" Partition to do the job . . . there's no obligation involved for this R-W service.

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NOTE . . . R-W also manufactures a complete line of top-quality Wardrobes for schools, churches and institutions. Write today for complete information.

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Keystone Tachette for Individual Use

A small, hand-operated Tachistoscope for near-point use is available for individ-



ual use in the Keystone Tachette. Standard Tachistoslides (R) are used, including such subjects as shorthand, typewriting, reading, number and fraction combinations and foreign languages. Designed for use by individuals who need training to supplement class work, the Tachette permits change of speed of flashing from very slow to more than 1/100 of a second. **The Keystone View Co., Meadville, Pa.**

For more details circle #469 on mailing card.

Pre-Cut Foil Sheets in Dispensing Package

Handy pre-cut sheets of aluminum foil for use in the kitchen, home economics department and other departments where small amounts of material are wrapped for storage, are now available in an interfold pop-up box. In addition, self-dispensing rolls and rectangular cut sheets of foil are available for institutional use. **Kaiser Alu-**

minum & Chemical Sales, Inc., 1924 Broadway, Oakland, Calif.

For more details circle #470 on mailing card.

Internal Filter on Heavy Duty Master Vac

The new Model P-1008 heavy duty Master Vac is redesigned to provide a new internal filter while maintaining high efficiency. The patented pleated filter supplies maximum filtering area and the new machine is adaptable to wet or dry cleaning



with a powerful blower and a portable shoulder vacuum. Large rubber tired wheels and center swivel caster make the machine easy to handle. **Premier Co., 755 Woodlawn Ave., St. Paul 16, Minn.**

For more details circle #471 on mailing card.

Contemporary Drapery Designs in Edwin Raphael Line

A wide variety of standard and custom colors are available in the two new con-

temporary drapery designs added to the Edwin Raphael line for institutional use. Called Quiescence and Tournament, the designs are printed 45-46 inches wide on Linplain weave fabric which is pre-shrunk, wrinkle and dirt resistant and non-abrasive. **Raphael Co., Inc., Holland, Mich.**

For more details circle #472 on mailing card.

Versatile Mower Cuts and Trims

Cutting and trimming can be completed in one operation with the new Locke Single Unit Power Mower and Trimmer. The versatile unit facilitates maintenance and saves costs since it can be used on large or small tracts as well as lawns and garden areas. The power mower has full-floating, counterbalanced cutting units which follow the natural contours of the lawn to as-



sure an even cut on sloping or rolling terrain. The design permits cutting right to the edge of flower beds and trees. **Locke Steel Chain Co., Lawn Mower Div., 1343 Connecticut Ave., Bridgeport 1, Conn.**

For more details circle #473 on mailing card.

FREE BROCHURE TELLS LATEST DEVELOPMENTS OF TAPE TEACHING SYSTEMS

Many modern educators believe that the answer to the overcrowded classroom and teacher shortage lies in revolutionary electronic tape teaching systems.

Everyone in the field of education should read this brochure. It tells the story of tape teaching — how it began and where it is being used. It shows the startling results of Metropolitan Tests of students "taught by tape," compared to students taught by conventional methods.

The free brochure also shows Modern Electronics MECOTAPE TEACHING

SYSTEMS — how they work and how they fit into any size classroom. Even more important, it shows the development of MECOTAPE through years of classroom and laboratory research that makes MECOTAPE the pioneering leader in the field of Tape Teaching Systems.

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MODERN ELECTRONICS/2000 Broadway/Department NS/San Antonio, Texas

3/R Line of Tables in Three Shapes



Functional, sturdy tables in three shapes are available in the new Irwin 3/R Line of classroom furniture. The streamlined, clean design with swaged tubular leg assures maximum knee clearance. Tables are available with nylon or steel glides, full plywood cores surfaced with Textolite, and with bookracks if desired. Shapes include round, trapezoidal and rectangular in sizes and table heights for use in any classroom. **Irwin Seating Co., Grand Rapids, Mich.**

For more details circle #474 on mailing card.

Glass Laboratory Ware Strengthened for Student Use

Pyrex glass is used in the new economy line of strengthened glass laboratory ware designed specifically for student use. The items are mechanically strong and resistant to heat, heat shock and chemical attack. Included in the line are a volumetric pipette with large tip opening, a straight bore stopcock burette with permanent Accu-red graduations, a thistle tube funnel



with flat-sided top to prevent rolling, and labeled and plain reagent bottles. In sizes for school use, pipettes are made with thicker walls for added strength. **Corning Glass Works, Corning, N.Y.**

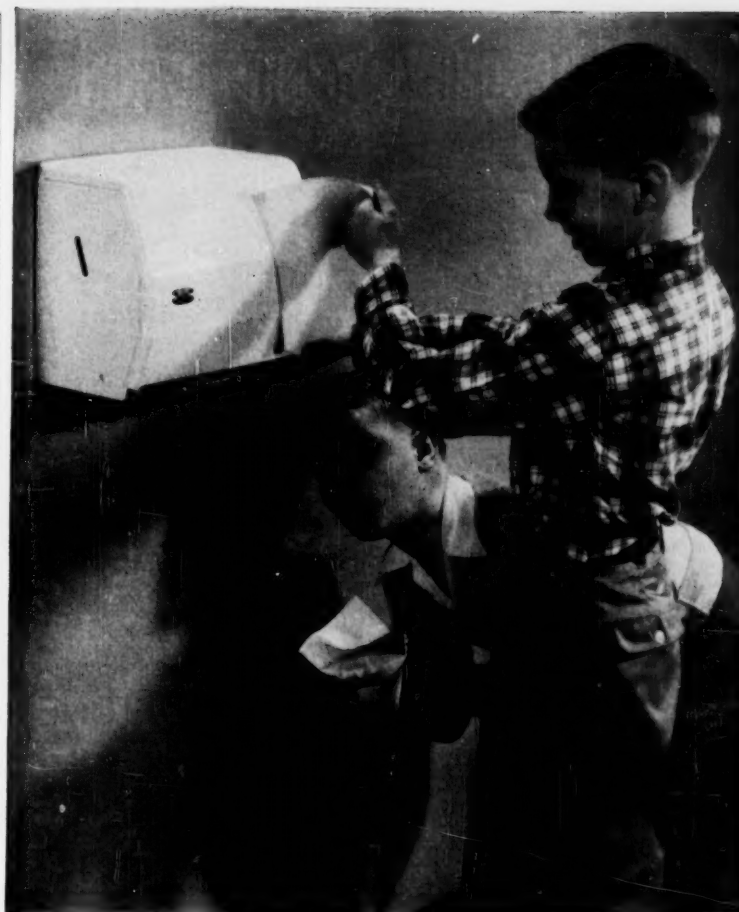
For more details circle #475 on mailing card.

Photocopy Halftone Paper Permits Copies of Photographs

A new type of photocopy material called PH (Photocopy Halftone) paper, is now available for use with Nord Photocopy Machines for copying any type of photograph, whether in black and white or color. Quick, inexpensive copies are quickly made which can be ferrotyped to give high, glossy, professional finishes. PH papers can also be used to make acceptable halftone originals for use on electronic stencil cutting machines and a special film is available to make masters for blue-print and diazo machines. **Nord Photocopy & Business Equipment Corp., 300 Denton Ave., New Hyde Park, L.I., N.Y.**

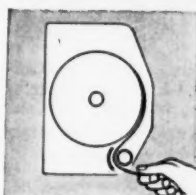
For more details circle #476 on mailing card.

(Continued on page 152)



With Steiner roll towels

They're helping cut towel waste 20%



HOW IT WORKS. Towels are in roll. User turns crank to get toweling. He then tears off towel. Result: fewer towels used . . . fewer towels tossed around washroom . . . less time spent by janitors in clean-up. Sturdy cabinet withstands abuse.

Young hands grab for towels . . . waste starts and washroom costs soar. But not if you have Steiner Company *controlled* roll paper towel dispensers in your washrooms. Here's why:

User takes from dispenser only amount of toweling he needs . . . no grabbing a handful of towels that aren't needed, half used and then thrown away.

You can cut towel costs up to 20% with Steiner *controlled* roll dispensers. Install them on a trial basis and see how you save. For more information contact your local janitorial supplier or sanitary paper distributor—or mail attached coupon.



STEINER COMPANY

740 RUSH STREET, CHICAGO 11, ILL., DEPT. D-12

Please send me free bulletins on Steiner controlled roll paper towel dispensers.

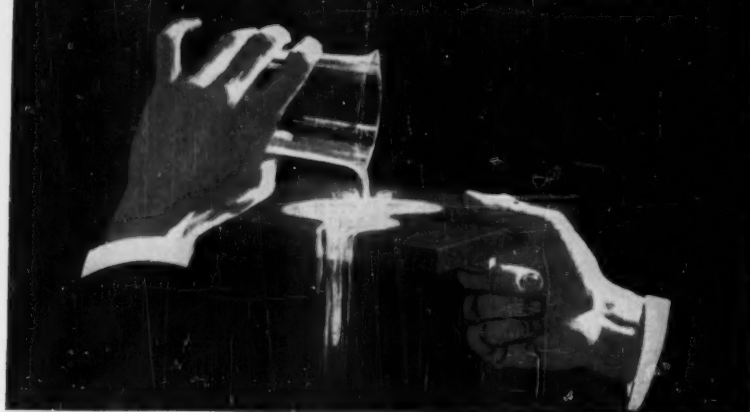
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SCHOOL _____

STREET _____

CITY _____ ZONE _____ STATE _____

LOW ABSORBENCY PROTECTION



*water absorption by weight
is less than 0.20% in 48 hours*

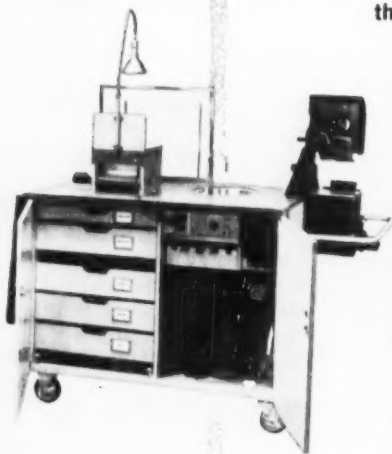
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overhead projector projects live experiments. Complete with 200 transparencies of science charts, tables, diagrams, pictures, etc.
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water supply electrically pumped
gas bottles containing oxygen, hydrogen, helium, carbon dioxide and propane
electrical system variable voltage regulator, 3 A.C. outlets and 30' extension cord
vacuum and pressure system 1/4 hp pump creates a vacuum of 0.02mm of mercury
apparatus 110 chemicals plus all necessary apparatus for chemistry, physics and biology
instruction booklets give complete information on the use of the table and all apparatus

designed and manufactured by

LABORATORY FURNITURE CO., INC.

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For complete details
write today for
Bulletin N12



Large Heavy Duty Griddle in Toastmaster Thunderbolt Line



The Thunderbolt "850" Model 7D1 Griddle has an 864-square inch cooking surface with maximum power for speedy cooking. Four independently controlled temperature dials permit the use of varying temperatures on four areas of the griddle to accommodate different foods. The stainless steel unit, for counter-top installation, requires no banking strips and is built for use with other Thunderbolt equipment for complete food service. Toastmaster Div., McGraw-Edison Co., Elgin, Ill.

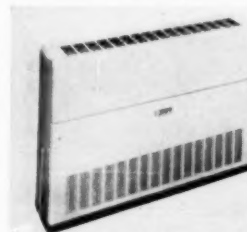
For more details circle #477 on mailing card.

Gymnasium Equipment Has Improved Features

Porter parallel bars for gymnasiums are now offered with fiberglass handrails which will not break or splinter. They are available as optional equipment, or can be purchased separately to replace conventional hickory rails on Porter Model 74 parallel bars. An exclusive construction technique gives the new handrails the same feel as wood as well as uniform bounce. Other new features of the bar include rubber feet for floor protection and a new design permitting the equipment to be raised on its casters for easy rolling over door jambs and other obstructions. Porter Athletic Equipment Co., Schiller Park, Ill.

For more details circle #478 on mailing card.

Electric Cabinet Heaters for Maximum Flexibility



Maximum flexibility of arrangement and operation are assured with the newly designed Ilg electric cabinet heaters. Two blow-through units with direct-drive fan assemblies and a draw-through model with V-belt-driven fan assembly are included in the new line. Units are available for floor, ceiling, wall or inverted mounting, non-recessed, semi-recessed or concealed. Three types of control available include manual, pneumatic and automatic and the contemporary design of the cabinets of formed furniture steel makes them suitable for use in any school. Ilg Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 41.

For more details circle #479 on mailing card.

Room-Darkening Material Is Flame-Resistant

"Ivora" is the name given to a flame-resistant vinyl drapery material for room darkening. Specifically constructed for school use, "Ivora" comes with an aluminum coating on the back to ensure sufficient dim-out for clear screen images without complete room black-out. The product has the natural texture of a conventional fabric, is soft, lightweight, and attractive, with high strength and resistance to tear. It can be cleaned with a soaped cloth or sponge and is available in four solid pastel colors. E. I. duPont de Nemours & Co., Room D-8033, Wilmington, Del.

For more details circle #480 on mailing card.

Air Conditioning "Circus" Visualizes Operation

Year-round air conditioning units actually in operation in room settings are set up



in the Warren Webster Mobile Demonstrators available for presentation at school, hospital, college or other institution. The display trucks are designed to show quickly the simplicity of use and ease of installa-

tion of air conditioning units and are accompanied by company engineers to answer questions and discuss applications. Warren Webster & Co., Inc., 17th & Federal Sts., Camden 5, N.J.

For more details circle #481 on mailing card.

Universal Pan Support Angle for Food Service Cabinets

Various sized steam table, roasting, and bun pans as well as service trays can be carried interchangeably without changing



pan support angles with the new Universal Angle recently introduced. Use of the new Cres-Cor Universal Angles in a cabinet or rack simplifies storage or transportation of foods in original pans, as well as preportioned meals on service trays. The Universal angles are readily removable and adjustable on 1½-inch centers. Crescent Metal Products, Inc., 18901 St. Clair Ave., Cleveland 10, Ohio.

For more details circle #482 on mailing card.

Zip-Top Paper Towel Carton Opens by Pull Tab

A convenient tab at one end of the Zip-Top tape which pulls out across the top



makes it quick and easy to open Nibroc paper towel cartons. The carton need not be cut and can be re-used for storage or shipping. Maximum sanitation of contents is assured by the new package. Brown Company, Box 131-Z, Boston 14, Mass.

For more details circle #483 on mailing card.

Hot Food Kitchen in Streamlined Design

Space is saved and service speeded with the new and streamlined model of the Heinz Hot Food Kitchen recently introduced. Designed for use in lunch rooms and for single service preparation, the electric kitchen prepares soups in two minutes and hot plate lunches in three minutes. It occupies only 12¾ by 18 inches of space and has electrically timed outlets for two hot cups for hot food preparation, with a swing-away can opener. H. J. Heinz Co., Pittsburgh 30, Pa.

For more details circle #484 on mailing card.

(Continued on page 154)



PROVEN STRENGTH!

Actual photograph above hints at the rugged, long-haul strength of Metwood tables. This tri-balance strength performs in some of America's finest institutions. Send for literature today, without obligation. Find out why professional buyers who check and test—choose Metwood!

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FOLDING TABLES

FUND-RAISING
BOOKLET FREE!
A service for clubs,
churches, etc. Write
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Newest on the classroom scene!

QUADRALINE
by american desk



A complete line of school furniture in future tense! You'll notice a marked improvement in working conditions with a unit like the "Jr. Exec" shown with Series 500 Chair. A counterpart of adult working facilities, it's generous with work space—economical with space requirements! A rugged, well-balanced unit... easily adapted to changing class needs. Permits grouping, side-by-side or staggered seating arrangements.

For Competent Assistance, Complete Details, Ask Your State AD Representative

american desk manufacturing co. dallas, temple, texas

Tray and Silverware Dispenser in Stainless Steel

A portable dispenser for silverware and cafeteria trays is now available from Lin-



coln in stainless steel. The unit stores enough trays and silverware for serving up to 200 persons and the upper compartments also dispense straws and napkins. The convenient height is suitable for children or adults. Lincoln Mfg. Co., Inc., P.O. Box 2313, Fort Wayne, Ind.

For more details circle #485 on mailing card.

Carlite 101 Fixture Has Plastic Dualens Shield

A two-tone plastic Dualens lighting fixture introduced as the Carlite 101 has sides in diffuse white and a patterned crystal clear bottom. Side brightness is cut while allowing highly efficient down lighting. The shield may be lowered from either side and hangs on a continuous hinge. Garden City Plating & Mfg. Co., Garco Lighting Div., 1750 N. Ashland Ave., Chicago 22.

For more details circle #486 on mailing card.

Sterilizer-Washer Sanitizes Urns, Cans and Drums

Coffee and other beverage urns, food dispensers, waste cans, drums and large mixing kettles and containers can be cleaned and sanitized with the new Aer-Void Sterilizer-Washer. It washes, rinses, sterilizes, deodorizes, preheats and pre-cools, operating quickly and easily by foot pedal action. The device employs a pressure propelled ball bearing, cyclonic-whirling, spray nozzle that cleans with a



scouring action. Installation is adaptable to all plumbing conditions. Vacuum Can Co., 19 S. Hoyne Ave., Chicago 12.

For more details circle #487 on mailing card.

Public Address Speakers Available with 45-Ohm Voice Coils

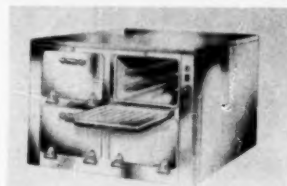
Four public address speakers in the Electro-Voice line are now available with 45-ohm voice coils, simplifying the use of public address speakers in intercom instal-

lations where 45 to 50-ohm lines are encountered. Replacement diaphragm voice coil kits are also offered in standard impedance or 45-ohms, allowing easy field maintenance or conversion to either standard impedance or 45 ohms. Electro-Voice, Inc., Buchanan, Mich.

For more details circle #488 on mailing card.

Electric Food Warmer Has Adjustable Steel Slides

Two pairs of removable and adjustable stainless steel slides in the new Thermotainer Type C-4 Electric Food Warmer adapt it to all standard sizes of pans, baskets, trays and insets. The flush-mounted, shelf-type doors simplify loading and unloading and provide for pass-through construction. All compartments are controlled by a single, full-range thermostat and have individual moisture control. The Thermotainer "channeled heat" principle assures uniformity of tempera-



tures, operating costs are low, and construction is of stainless steel. Franklin Products Corp., 400 W. Madison St., Chicago 32.

For more details circle #489 on mailing card.

Student PROOF

yet
Instantly Adjustable!

PERFECT POSTURE—INSTANTLY!

\$15.95

- Standard School Colors
- Instantly Adjustable
- Tubular Design
- Sturdy Maple Seats

Here's inexpensive posture seating with all the adjustments of that used in business. The height adjusts instantaneously from 14" to 22"; the 5-ply maple seat pivots on a lifetime swivel; the back adjusts in and out, up and down. Write today for full information. Prices on similar chairs start at

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You say this Tergisyl® disinfectant-detergent cleans, deodorizes and disinfects at the same time? Sounds like just what we need for the halls and classrooms as well as the gym and lavatories—got to do everything possible to check the spread of disease germs this year.

If hospitals like it so well, it should be just right for schools. Know if it comes in large sizes?

Sure—even 50 gallon drums—that's what we ordered—but it comes in 15, 5, and even 1 gallon sizes, too.

That's right, we're getting Tergisyl® for every school in the district. Why don't you send for samples? We did, and were convinced on the first trial.

One 4 oz. sample makes 1 gallon of cleaning-disinfecting solution. Write for samples today.

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4934 LEWIS AVE., TOLEDO 12, OHIO
Makers of Lysol® Brand Disinfectant

Speedomatic Lighting Troffers Are Extra-Shallow

Fast Installation and shallow area are features of the new Speedomatic lighting troffers. Recessing less than five inches, the troffers are available in four basic types to fit all modern ceilings. An exclusive telescopic door frame automatically adjusts the Speedomatic to assure perfect fitting, even in irregular ceiling openings. A single width of metal frames the installed shielding, offering maximum illuminated area. The doors open without mechanical catches and the wiring access door provides ample room to reach cables. **Smithcraft Lighting, Chelsea 50, Mass.**

For more details circle #490 on mailing card.

Steel Teachers Desk Has Plastic Top

Single and double pedestal teachers desks with attractive, durable plastic tops are now available in the Honor line. Sturdi-



ly constructed of steel, the desks have modern styling with top extension for conference. Overall locking is controlled through the center drawer. The desks are offered

in gray or blue, with coral, yellow, spruce or sandalwood drawer fronts and back panels. **The H-O-N Co., Muscatine, Iowa.**

For more details circle #491 on mailing card.

Positive Vacuum System in Statler-Petoskey Floor Sander

A powerful new type vacuum system that pulls all sanded particles into a bag without dust, is a feature of the new Statler-Petoskey Floor Sander. No edging equipment is needed as the machine sands flush with



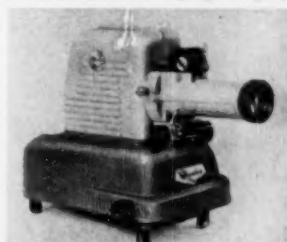
moldings. The twin sanding pads are reversible and easily snapped off. The sander is easy to operate, can be carried, and the design permits the handle to swing to either side. **Statler-Petoskey Corp., 20356 Grand River Ave., Detroit 19, Mich.**

For more details circle #492 on mailing card.

Combination Projector Doubles Light Power

The V-25-P is a new projector which handles either 35mm filmstrips or two by two-inch slides. The versatile unit com-

bines a new light source with a specially designed optical system to produce twice the effective light power for improved classroom projection. Pop-up lamp ejection



facilitates changing without the possibility of burns. A new venturi-style lamp housing in the new super-cooling system permits unlimited showing time. **Viewlex, Incorporated, 35-01 Queens Blvd., Long Island City 1, N.Y.**

For more details circle #493 on mailing card.

"Speed Feed" on Photocopier Permits Faster Insertion

Documents can be inserted faster for photocopying with the new "speed feed" feature of the Dial-A-Matic "Auto-Stat." Specially designed rollers which clamp the document being inserted and guide it automatically are responsible for the easier and faster operation of the desk-top, all-purpose copying unit. **American Photocopy Equipment Co., 2100 Dempster, Evanston, Ill.**

For more details circle #494 on mailing card.

(Continued on page 136)

ARNCO

**rings the bell for
practical, low cost
school wardrobes!**

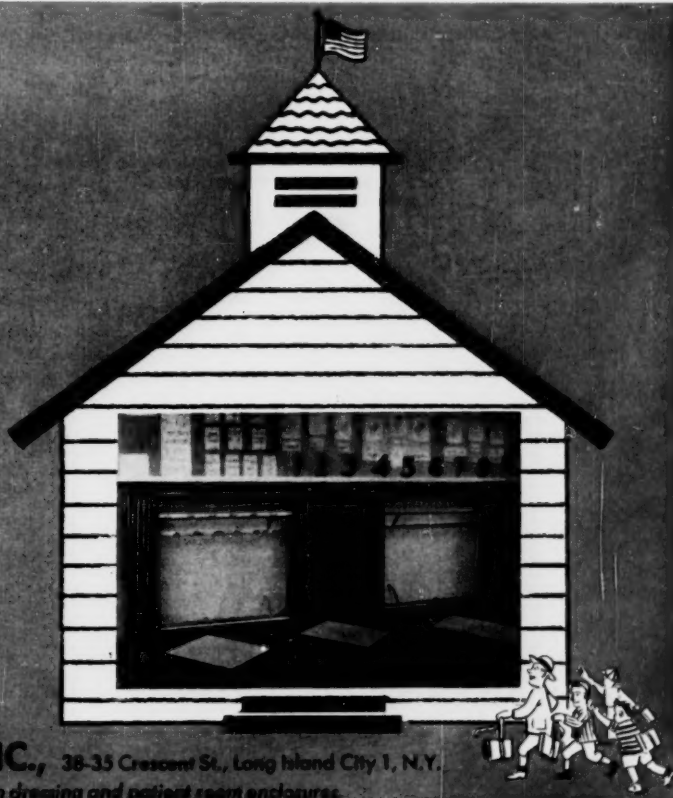
Here's a school wardrobe that has everything! Compact . . . easy to install . . . this good-looking hat and coat rack is finely engineered in non-peeling aluminite finish, lasts indefinitely. Furthermore . . . it becomes a marvelous space-saving unit when combined with the spacious teacher's wardrobe and supply closet and smooth, fire-proof gliding curtaining.

From every angle . . . this convenient, durable, low-cost school wardrobe represents an unbeatable buy!

Write for folder.

A. R. NELSON CO., INC., 38-35 Crescent St., Long Island City 1, N.Y.

Write for cubicle circular on dressing and patient room enclosures.



Liquid Soap Dispenser Has Unbreakable Globe

Unbreakable plastic is used to form the globe of the new Model 829 Basin Type



Liquid Soap Dispenser. The body is formed of chrome plated brass and the tamper-proof precision-machined pushbutton spout of stainless steel ensures trouble-free per-

formance. Bobrick Dispensers, Inc., 1839 Blake Ave., Los Angeles 39, Calif.

For more details circle #495 on mailing card.

Portable Vacuum Cleaner Features Powerful Motor

An extremely powerful motor is used in the manually propelled portable JB 365 heavy-duty vacuum cleaner. It can easily be converted to a power blower for help in cleaning hard to get at areas or to a wet pick-up for safe, efficient liquid recovery. The wet-pick-up adapter is used with a single blade slide-on squeegee that picks up liquid on both forward and backward strokes. Pullman Vacuum Cleaner Corp., 25 Buick St., Boston 15, Mass.

For more details circle #496 on mailing card.

Literature and Services

- An informative booklet on "The Microphone in Public Address Systems" is available from Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill. The 8-page brochure describes the components of a public address system, gives tips on buying or improving a system, and carries an instructive section on "Mastering the Microphone."

For more details circle #497 on mailing card.

- Two methods for promoting safe bicycle riding habits are offered by United States Rubber Co., Cycle Tire Dept., 549 E. Georgia St., Indianapolis 6, Ind. A word puzzle book, "U.S. Royal Word Puzzle Book," contains eleven word puzzles which, when solved, contain safety slogans and reminders for bicycle riders. Official membership cards for the "Royal Safety Rider Club" contain 12 safety rules in addition to space for name, address, telephone number, make and serial number of bicycle.

For more details circle #498 on mailing card.

- Maintenance and refinishing methods for most types of laboratory work surfaces are described, with prices, in the new six-page "Maintenance Guide" available from Kewaunee Mfg. Co., 5023 S. Center St., Adrian, Mich. Also described and priced are some commonly used laboratory service fixtures.

For more details circle #499 on mailing card.

- The "Specification Manual for Northern Hard Maple, Beech and Birch Flooring," available from the Maple Flooring Manufacturers Assn., 35 E. Wacker Drive, Chicago 1, lists physical characteristics and available lengths of this type of flooring.

For more details circle #500 on mailing card.

- School fires are discussed in a recent issue of "Metal Lath News" published by Metal Lath Manufacturers Assn., Engineers Bldg., Cleveland 14, Ohio.

For more details circle #501 on mailing card.

- Five Pointer System lesson manuals are now available from Thomas Organ Co., Sepulveda, Calif., or Pointer System, Winona Lake, Minn. The manuals cover a widely accepted method for teaching organ.

For more details circle #502 on mailing card.

- Complete data on Ceco hollow metal doors with matching frames and hardware are given in Brochure No. 2040-G, published by Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50. The 32-page booklet illustrates flush and panel designs as well as louvered doors.

For more details circle #503 on mailing card.

- "School Shop Furnace Equipment" is illustrated and described in a new brochure available from Sunbeam Equipment Corp., Meadville, Pa. Shown are furnaces for melting, forging, hardening, tempering, carburizing and annealing.

For more details circle #504 on mailing card.

- Catalog No. 60, available from Payson-Harris & Reed, Inc., 2916 W. Jackson Blvd., Chicago 12, illustrates the complete line of caster and wheel products, from heavy industrial to office chair models. Specifications and uses are given for the general line for several new models.

For more details circle #505 on mailing card.

(Continued on page 158)

PUSH BUTTON *Speed Selection* from to in seconds

or to *any* intermediate speed, *instantly*

Just push a button and watch the large tachometer dial on the headstock!

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The work is done by a motor driven speed changer. It accelerates or slows the lathe to any desired speed in seconds. With a 10:1 ratio, this new variable drive makes it easy to select from a wide range of speeds—200 to 2000 rpm in direct drive and 40 to 300 rpm in back gear.

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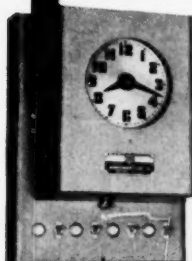
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Operates up to 5 separate schedules on 1 to 5 groups of signals. 12 or 24 hour models. Signals from 2 to 25 seconds duration. Calendar switch regulates operation. Program mechanism and clock movements perfectly synchronized; set simply by turning clock hands. Push buttons do not disturb automatic operation.

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design 2716

• A 16-page booklet, written for high school and college freshmen chemistry students, is available from United States Steel Corp., Public Relations Dept., 71 Broadway, New York 6. Divided into seven major sections, the booklet, "**Principal Alloying Elements in Steel**," gives educational data and ends with questions and answers and a problem in mathematics.

For more details circle #506 on mailing card.

The revised edition of the "**Pocket Manual of Heating**" is available from Dunham-Bush, Inc., 179 South St., West Hartford 10, Conn. at \$1 per copy. Sections on wet heating systems, radiation, unit heaters, pumps, blower unit heaters, special purpose pumps and control equipment are among the many features of the handbook.

For more details circle #507 on mailing card.

• "**Chemistry for Today**" is the title of a booklet discussing the new films made co-operatively by the American Chemical Society and Encyclopaedia Britannica Films Inc., 1150 Wilmette Ave., Wilmette, Ill. The films present a full year's course in chemistry and employ the most up-to-date presentation material available. The descriptive booklet is designed for the information of school administrators, teachers and parent groups.

For more details circle #508 on mailing card.

• The "**1959 Catalog and Instructional Guide**" lists and describes books and other educational materials published by Childrens Press, Jackson and Racine, Chicago.

For more details circle #509 on mailing card.

• How the Wheelit multiplies the usefulness of audio-visual equipment is discussed in a new leaflet prepared by Gruber Products Co., 2223 Albion, Toledo 6, Ohio. Photographs illustrate the facility with which audio-visual equipment is handled when the Wheelit is used, and how all of the necessary equipment is carried on the mobile unit which also serves as a projection table.

For more details circle #510 on mailing card.

• Home economists, food technicians and professional writers collaborated in preparation of the new **General Foods Kitchen Cookbook** which should be of interest and value to teachers and students in home-making departments as well as to those concerned with food service. Designed to help in the planning, preparation and serving of complete meals, and arranged by meal situations, the 448-page book has full color illustrations and line drawings and is now available from General Foods, White Plains, N.Y. Pages are grease-resistant, the cover is washable, and the book lies flat when open.

For more details circle #511 on mailing card.

• The "**Plan-a-Shop**" cut-out kit developed by Duro Metal Products Co., 2651 N. Kildare, Chicago 39, consists of a colorful brochure outlining the basic principles of shop planning, a large blueprint floor plan and dimensional power tool cut-outs which are scaled to size. The cut-outs are printed on hard cardboard and may be used repeatedly.

For more details circle #512 on mailing card.

"Electronic Aids to Education" are listed in the new eight-page catalog available from Radio Corporation of America, Camden 2, N.J. Such items as school sound systems and components, radios, 16mm projectors, language laboratory systems, test equipment, electron tubes and broadcast transmitters are described.

For more details circle #513 on mailing card.

• Control systems for hot water, steam, gas-fired and electric unit ventilators are described in the "**Unit Ventilator Control Application Manual**" available from Barber-Colman Co., 1330 Rock St., Rockford, Ill. Actual control applications are shown and complete cycles of operation, damper sequence charts, temperature control specifications and installation data on all models in the line are included.

For more details circle #514 on mailing card.

• The 1960 catalog of electronic parts and equipment, including a complete line of radio and electronic kits for teaching purposes, is available from Allied Radio Corp., 100 N. Western Ave., Chicago 80. Over 40,000 items are listed in the 444-page catalog.

For more details circle #515 on mailing card.

• Informative discussions on "**Fire-Resistant Construction in Modern Steel-Framed Buildings**" is available, in editorial text form, in a 44-page booklet published by the American Institute of Steel Construction, Inc., 101 Park Ave., New York 17.

For more details circle #516 on mailing card.

• A new short-run printing technic makes it possible for teachers to have texts tailored to their own syllabus and books printed at low cost for limited distribution. Available from G. H. Hall & Co., Dept. D, 97 Oliver St., Boston 10, Mass., the service permits reproduction in a single folioed volume, seven by ten or five by seven inches in size, of pages from existing publications, typewritten or mimeographed pages, line drawings and the like. Single library copies of rare or worn books can also be reproduced in quantities for use in classes and to relieve the strain on "reserved shelves" in libraries.

For more details circle #517 on mailing card.

• The full line of drawing sets and equipment, instruments, materials, designing aids and measuring devices manufactured by Alvin & Co., Inc., 611 Palisado Ave., Windsor, Conn., is described and illustrated in the new **Catalog and Ready Reference Chart** available from the manufacturer.

For more details circle #518 on mailing card.

"Educational Aids for Schools and Colleges" are listed and described in the 1959-60 catalog published by the National Assn. of Manufacturers, 2 E. 48th St., New York 17. Motion pictures, pamphlets and teacher reference materials are included.

For more details circle #519 on mailing card.

• Quantity recipes for the use of Kellogg's Corn Flake Crumbs for breading, crumbing, pie shells and the like, are presented in a folder entitled "**Magic No. 2 for Quantity Service**." Available from Kellogg Co., Battle Creek, Mich., the leaflet contains recipes for from 20 to 125 portions.

For more details circle #520 on mailing card.

(Continued on page 160)

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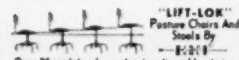


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Three films to teach the human side of science, "Aristotle and the Scientific Method," "Galileo" and "Isaac Newton," each 1½ reels, sound, color or black and white. "Heart, Lungs and Circulation," "Improve Your Punctuation" and "The Lion and the Mouse," each one reel, sound, color or black and white. Coronet Films, 45 E. South Water St., Chicago 1.

For more details circle #521 on mailing card.

"Adventuring in Conservation," informational film on basic conservation principles and practices. Audio-Visual Center, Indiana University, Bloomington, Ind.

For more details circle #522 on mailing card.

"Instruments of the Symphony Orchestra," six color filmstrips with synchronized recordings, including, "String Instruments," "Woodwind Instruments," "Brass Instruments," "Percussion Instruments," "Melodious Percussion Instruments" and "The Orchestra." The Jam Handy Organization, 2821 E. Grand Blvd., Detroit 11, Mich.

For more details circle #523 on mailing card.

"New Nations in the World Balance," 58 black and white frames, with discussion manual. The New York Times, Office of Educational Activities, 229 W. 43rd St., New York 36.

For more details circle #524 on mailing card.

"Science for Better Living," eight Harbrace science filmstrips correlated with the "You and Science" textbook copyrighted by Harcourt, Brace & Co., Inc., suitable for use with basic general science program,

with 96-page teacher's lesson plan, now distributed by Society for Visual Education, Inc., 1345 W. Diversey Pkwy., Chicago 14.

For more details circle #525 on mailing card.

"Hammers, Screw Drivers, Nails and Screws," set of nine filmstrips totaling 149 frames, black and white. Stanley Tools, Div. of The Stanley Works, Educational Dept., 111 Elm St., New Britain, Conn.

For more details circle #526 on mailing card.

"As You Like It," 36 frames; "Julius Caesar," 38 frames, and "A Midsummer Night's Dream," 37 frames, filmstrips to aid in teaching English, with teaching handbooks. United World Films, Inc., 1445 Park Ave., New York 29.

For more details circle #527 on mailing card.

Suppliers' News

Califone Corporation, 1020 N. LaBrea Ave., Hollywood 38, Calif., manufacturer of record players, sound systems, language laboratories and related teaching equipment, announces the acquisition of a majority interest in its operation by Rheem Mfg. Co., 400 Park Ave., New York 22. As of December 1 the company will be known as Rheem Califone Corporation and will be operated as a Rheem subsidiary to develop, manufacture and sell Rheem's recently announced line of teaching machines for schools and industry, in addition to the Califone line.

Photostat Corporation, 1001 Jefferson Rd., Rochester 3, N.Y., manufacturer of micro-filming, photocopying and offset duplicat-

ing equipment and supplies, announces the acquisition of the Flofilm Division of Diebold, Incorporated, manufacturer of microfilm cameras, readers, processors and related supplies and equipment. The transaction gives Photostat a complete microfilming product line and it is stated that Photostat and Flofilm production will be integrated in the new modern Photostat plant and Flofilm service stations and film processing installations situated in cities where Photostat maintains branch offices will be relocated in Photostat facilities.

Spencer Press, Inc., School and Library Div., 179 N. Michigan Ave., Chicago 1, announces its appointment as national school and library distributor for Columbia Records. Ready access to many fine recordings relating to class interests and those for public libraries is now afforded through the alliance of Columbia Records with the distribution facilities of Spencer Press.

Thompson Ramo Wooldridge Inc. announces acquisition of a controlling interest in Magnetic Recording Industries, 11 E. 16th St., New York 3, producer of language laboratory and other electronic educational equipment. Magnetic Recording Industries, according to the announcement, will continue to operate autonomously as a subsidiary of Thompson Ramo Wooldridge Inc., which includes Dage Television, producer of closed circuit television, Bell Sound, manufacturing tape recorders and stereophonic music components and consoles, and Bel Canto, producer of stereophonic tapes.

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index of "What's New" items (left) where you
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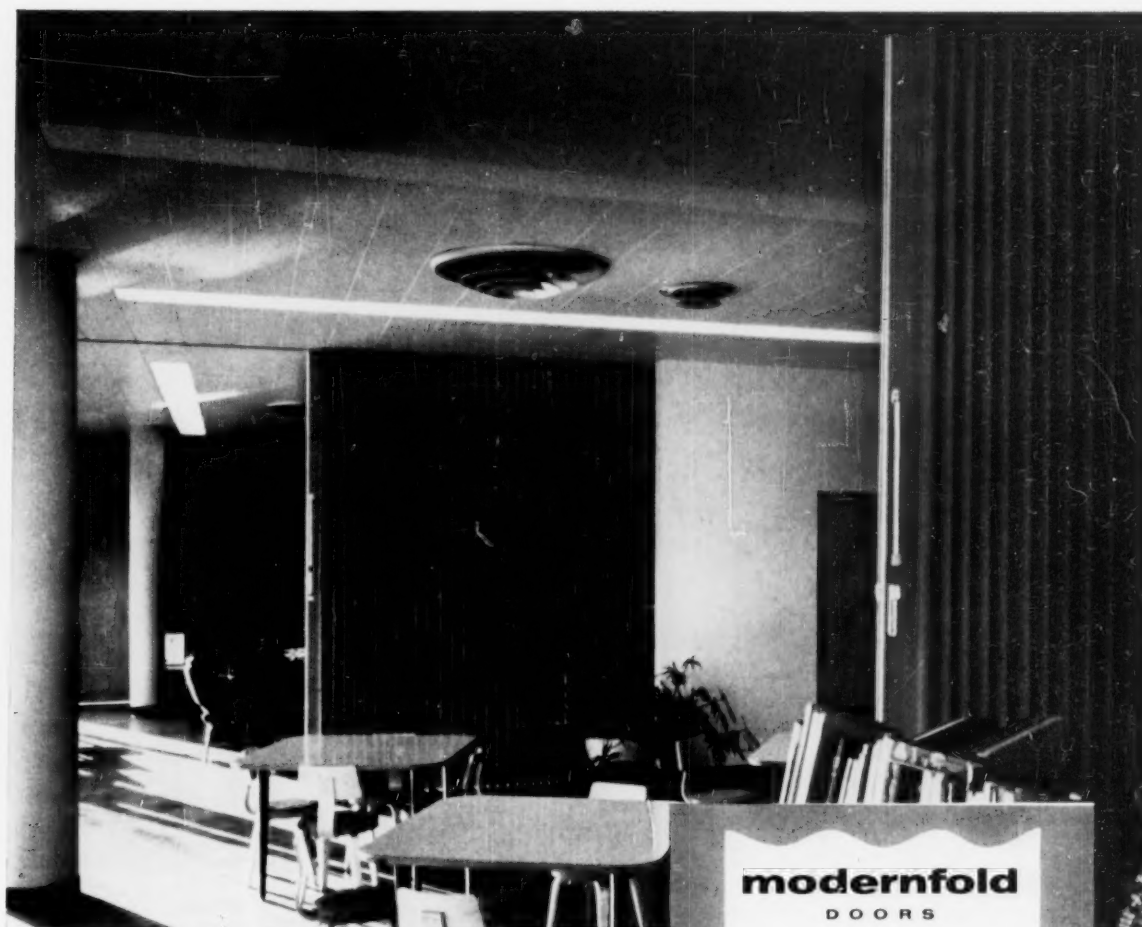
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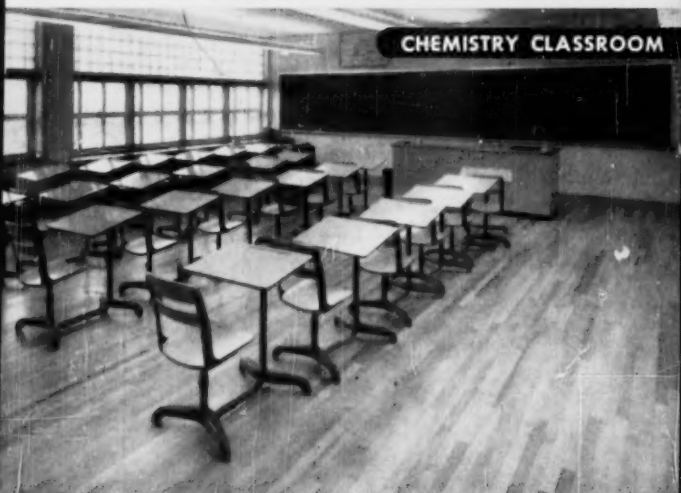


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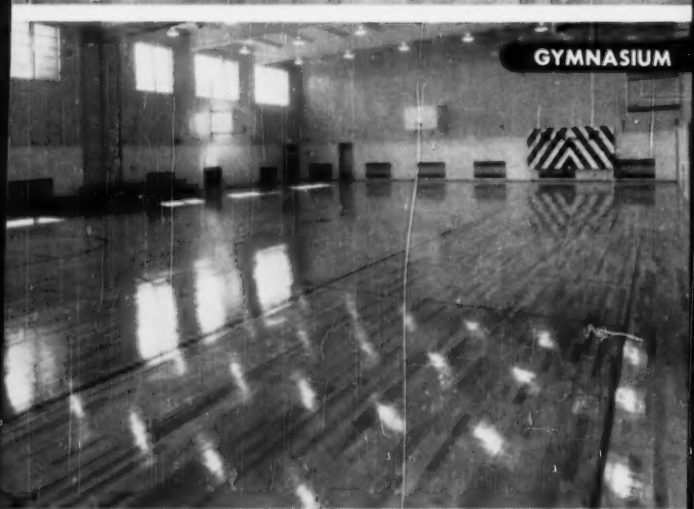


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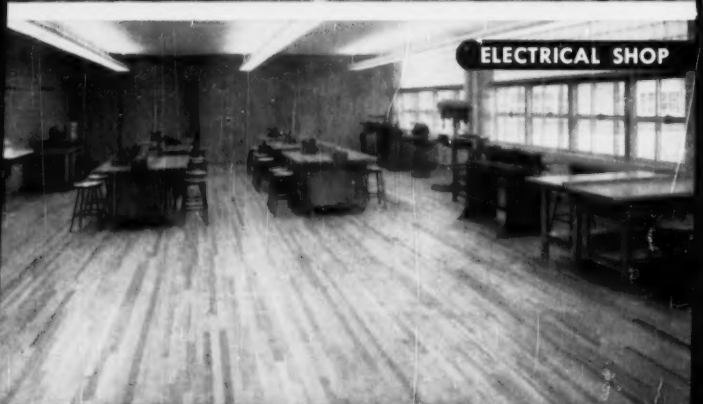
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